

**PROJECT HOPE**

**IMPROVING THE HEALTH OF MOTHERS AND  
CHILDREN OF RURAL JINOTEGA, NICARAGUA:  
An Integrated Approach in Partnership with the Public  
and Private Sector Providers in Coffee-Growing Areas**

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**Cooperative Agreement No. HFP-A-00-02-00026-00**

**DETAILED IMPLEMENTATION PLAN**

**Project Duration:  
September 30, 2002 – September 29, 2007**

**Submitted to:  
USAID/GH/HIDN  
Child Survival and Health Grants Program  
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**June 27, 2003**

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## ACRONYMS

AIN	Integrated Services to the Child
AIN-C	Integrated Services to the Child—Community-based
AMATE	Animación, Motivación, Apropiación, Transferencia, Evaluación (Spanish acronym for educational approach)
APHA	American Public Health Association
ARI	Acute Respiratory Infection
BCC	Behavior Change and Communication
BF	Breastfeeding
CAs	Cooperating Agencies
CBDAs	Community-based Distribution Agents
CDD	Control of Diarrheal Diseases
CHV	Community Health Volunteer
CHW	Community Health Worker
COPE	Client-Oriented Provider Efficient
CORE	The Child Survival Collaborations and Resources Group
COL-VOL	Volunteer Collaborator for Malaria Control
CORU	Community Oral Rehydration Unit
CRS	Catholic Relief Services
CS	Child Survival
CSHGP	Child Survival Health Grant Program
CSTS	Child Survival Technical Support Project
CYP	Couple-Years of Protection
DHS	Demographic Health Survey
DIP	Detailed Implementation Plan
DOSA	Discussion-Oriented Self-Assessment
FAM	Financial and Administrative Manager
FFHU	Fully Functional Health Unit
FP	Family Planning
FONMAT	Fund for Safe Motherhood and Childhood
GHC	Global Health Council
GM	Growth Monitoring
GMP	Growth Monitoring and Promotion
GIK	Gift-In-Kind
GON	Government of Nicaragua
HC	Health Center
HIS	Health Information System
HP	Health Post
HQ	Headquarters
HU	Health Unit
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illness
IMR	Infant Mortality Rate
INEC	National Institute of Statistics and Census
ISA	Institutional Strengths Assessment
KPC	Knowledge, Practice, and Coverage
LAM	Lactational Amenorrhea Method
LQAS	Lot Quality Assurance Sampling
LSRL	Low Serum Retinol Level
MCH	Maternal and Child Health
MMR	Measles, Mumps and Rubella
MN	Micronutrients
MOH	Ministry of Health
MTCT	Mother-to-Child Transmission
MSH	Management Sciences for Health
MWH	Maternity Waiting Homes

NFP	Natural Family Planning
NGO	Non-Governmental Organization
NICASALUD	Network of PVOs in Nicaragua
OR	Operations Research
ORT	Oral Rehydration Therapy
ORS	Oral Rehydration Salt
OTR	Oral Therapy Rehydration
PAHO	Pan American Health Organization
PAININ	Program for Integrated Services to Nicaraguan Children
PCI	Project Concern International
PDA	Portable Digital Assistant
PHC	Primary Health Care
PNUD	United Nations Development Program
PVO	Private Voluntary Organization
QA	Quality Assurance
RAAN	Northern Atlantic Autonomous Region
RDA	Recommended Dietary Allowance
RH	Reproductive Health
SILAIS	Sistemas Locales de Atencion Integral en Salud
SO/IR	Strategic Objectives/Intermediate Results
STI	Sexually Transmitted Infections
TA	Technical Assistance
TB	Tuberculosis
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
TIPS	Trials of Improved Practices
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNAN	University
UNFPA	United Nations Population Fund
USTF	Totally Functional Health Unit
VA	Vitamin A
VAD	Vitamin A Deficiency
VCT	Voluntary Counseling and Testing
VHB	Village Health Bank
WFP	World Food Programme
W/MCH	Woman/Maternal Child Health

## **DETAILED IMPLEMENTATION PLAN PROCESS**

### **A. EXECUTIVE SUMMARY**

Project HOPE is implementing a five-year program aimed at improving the health status of children under five and women of reproductive age in the Department of Jinotega, Nicaragua—with a focus on its rural populations, including those working on the region's many private coffee plantations. The program will build upon HOPE's strong network of public health education programs in Boaco, Chontales, and three municipalities of Jinotega, with staff in all three departments as well as a central coordinating office in Managua. It will also benefit from lessons learned in HOPE's innovative and highly successful child survival program on the coffee plantations of Guatemala's Boca Costa region.

Located along Nicaragua's northern border with Honduras, Jinotega is mainly rural and mountainous, and is among the country's poorest departments. Coffee production is the main economic activity, with an estimated 12,000 plantations in the region. Severely affected by Hurricane Mitch in late 1998, the plantations in Jinotega have suffered further economic losses due to the recent sharp downturn in coffee prices. As a result, the size of the labor force has been significantly reduced, with an attendant impact on household income and health status.

The target population includes 60,031 children under five and 70,827 women of reproductive age (130,858 beneficiaries). The infant mortality rate is 66/1,000—over 50% higher than the national average of 45/1000 (DHS 2001). Major causes of infant mortality and morbidity include diarrhea and acute respiratory infections (both with the highest rates in the country); chronic malnutrition (second highest rate); and iodine deficiency (highest rate). The maternal mortality rate is extremely high (267/10,000 compared to 150/10,000 nationally) (WFP, 2002; MOH 2001), due largely to obstetric-related causes (hemorrhage from placenta retention, eclampsia, abortion and uterine rupture). The fertility rate in Jinotega twice the national average: 6.3 compared to 3.2) (WFP 2002, DHS 2001). Low educational levels, widespread poverty, poor quality of health services, and geographic barriers to facilities contribute to women's poor health status. Other important factors include gender issues (including high rates of domestic violence), religious injunctions against contraceptives, and the generally low social status of women. HIV/AIDS also poses a serious and growing threat to women and children in Nicaragua—the only country in Central America where HIV/AIDS prevalence rates have increased by more than 100% per year since the mid-1990s.

The goal of this program is to reduce morbidity and mortality rates of children under five and women of reproductive age in the Department of Jinotega's primarily rural communities. This will be achieved by building the service-delivery capacity of local health facilities and organizations; increasing the skills and elevating the morale of health care providers; strengthening cooperation among public, private and community stakeholders; and empowering consumers, particularly women, to take greater responsibility for personal and family health maintenance decisions.

Specific program health interventions and level of effort include maternal and newborn care (30%), nutrition/micronutrient deficiencies (13%), breastfeeding promotion (10%), control of diarrheal disease (15%), pneumonia case management (10%), immunization (7%), child spacing (10%), and HIV/AIDS/STIs (5%). The proposed interventions will be implemented in

accordance with Nicaragua's "Integrated Services to the Child" (AIN) approach, Central America's version of IMCI.

The program includes a specific set of capacity-building activities and objectives as well as health-related interventions. With respect to capacity building, HOPE will facilitate the establishment of Department- and Municipality-level Health Councils—to include representatives of SILAIS (MOH Department-level), municipalities, private coffee plantations and associations, PVOs, NGOs, community leaders, health providers, and international donors—to guide and extend the project. Program staff will work with constituent groups to train key leaders and supervisors, establish planning systems, develop informational tools and procedures for evaluation, and develop their overall capacities to design and effectively implement CS activities.

Key health objectives include the following: improve the quality of prenatal and postpartum care, and nutritional practices for pregnant women; increase the percentage of newborns and infants who are breastfed; improve nutritional status of children through better feeding practices; improve case management of diarrheal disease and practices to prevent diarrheal episodes; improve management of ARIs and health-seeking behaviors; increase immunization coverage for young children; increase the use of family planning methods and extend birth intervals; and increase knowledge regarding prevention of HIV/AIDS/STIs.

Project HOPE's primary partners in these efforts are SILAIS/MOH Jinotega and coffee plantations and associations in the region. HOPE's contacts with these key public and private constituencies began in 1999, when HOPE began implementing a USAID-supported project to improve access to basic health services for low-income rural families affected by Hurricane Mitch. In that same year, HOPE and coffee plantation owners in Jinotega began discussing a potential partnership to improve health care for plantation employees and their families and for residents of nearby communities, a partnership based on the HOPE Guatemala model (1997-2001, and recently extended until 2005). The willingness of private agricultural employers to collaborate with HOPE in developing systems to maintain and improve worker health was key to HOPE's success in Guatemala and will be critical to the Jinotega program.

Project HOPE brings significant experience and credibility to this program. HOPE's work in Nicaragua dates to 1966, when an eight-year program was launched with the country's principal medical school in Leon, to improve medical and nursing education. Project HOPE returned to Nicaragua in 1990, following the change of government, to assist in rebuilding and revitalizing the national health system. HOPE began implementing MCH/CS activities in Boaco the following year, adding program sites over the following decade.

This project is funded under the "new" program category with \$1.3 million from USAID, accompanied by a \$1.3 million match from HOPE. The project began September 2002 and will end September 2007. The authors for this Detailed Implementation Plan (DIP) are Ing. Francisco Torres, Project HOPE Country Director/Nicaragua; Dr. Mario Ortega, Program Manager, Jinotega; Headquarters staff: Virginia Lamprecht, Reproductive Health Specialist; Juan Carlos Alegre, Information Specialist; and Robert Grabman, Regional Director for the Americas. The USAID/Nicaragua official consulted for this project was Alonzo Wind, Health Development Officer. The contact person for Project HOPE is Robert Grabman.

## **B. CSHGP DATA FORM** (see insert previous pages)

## **C. DESCRIPTION OF THE DIP PREPARATION PROCESS**

The preparation of the Detailed Implementation Plan (DIP) was a participatory process involving staff from Project HOPE, the MOH, local NGOs, and coffee plantation owners. Project HOPE staff involved included those from headquarters (based in Millwood, Virginia, USA); Project HOPE/Nicaragua Country Office Headquarters in Managua; and Project HOPE/Jinotega, the Program Office for the current Child Survival Program. Ministry of Health (MOH) staff was involved at both the SILAIS (Departmental) and municipality levels. Representatives from coffee plantations, primarily located in the Department of Jinotega, also participated in discussions and stakeholder meetings. Local NGOs and community groups also provided input as well participated in baseline assessments. Through its network of contacts in Nicaragua, Project HOPE/Jinotega also involved a number of representatives from other entities who provide valuable technical assistance and support including USAID/Nicaragua, USAID-supported country-level projects, including MOST (a project focusing on nutrition and micronutrients), Nicasalud (a network of over 20 local PVOs/NGOs working in Nicaragua), and The National Autonomous University of Nicaragua (UNAN).

The main milestones in creating the DIP document included internal meetings (including one facilitated by an outside consultant) to review and re-consider the objectives and strategies, select key indicators, and create a “HOPE vision” for the project. Numerous meetings were also held with our main partner, the MOH, both at the SILAIS (Departmental) and municipality levels to discuss intervention priorities, main strategies, and priority areas for program activities. Local officials were also present at some of the meetings held at the municipality levels. Meetings were also held with representatives/owners from the coffee plantations and local NGOs to orient them more fully to the project, to obtain their input and solicit their committed involvement with the program. Lastly, many local NGOs are included in the discussions involving the Child Survival Project in Jinotega, and many of them are already collaborating with Project HOPE in the implementation of the project (such as assisting in conducting interviews in for the baseline KPC (Knowledge, Practices, and Coverage) Survey).

### **Major Start-up Activities**

One of the first main tasks at the very start of the project was to hire key staff to manage and direct the technical aspects of the Child Survival Program. The Program Manager and four technical specialists were hired and starting working in October 2002 for the Child Survival program. Project HOPE was able to select candidates from its own pool of qualified and experienced staff, as three major projects had just recently ended (in Boaco, Chontales, and Jinotega). Dr. Mario Ortega, hired as the Program Manager; was the former Program Manager of the Chontales CS Program (also centrally funded). All of the four of the technical specialist candidates (all were confirmed later and given permanent status) held key roles in prior Project HOPE/ Nicaragua projects. All of them have experience working for the MOH in Nicaragua, and many also have prior work experience working for NGOs or PVOs. To help draft new job descriptions and define the roles of each of the technical specialists, a workshop was conducted in November 2002, facilitated by Project HOPE’s Regional Health Education Specialist, Dr.

Marta Arce. During the workshop, the leadership and facilitation skills of each candidate were assessed. In addition, Dr. Arce introduced an approach to health education that will be used in the implementation of the 5-year Child Survival Project. The methodology used in this approach is called AMATE in Spanish and consists of five components: Animation (‘Liveliness’)—getting the audience prepared and interested in learning; Motivation—stimulating the curiosity of the audience, introducing the topic and finding out what the audience already knows; Appropriation—testing what the audience knows and challenging assumptions through exchange of knowledge, ideas, experiences and the introduction of new information and constructing/incorporating the new ideas/knowledge; Transference—applying the theory to practical situations, working with new knowledge and skills creatively; and Evaluation—demonstrating the integration and connection of new knowledge and skills as evidenced by the results (products) created. A second workshop will take place in May 2003, and its purpose will be to review the objectives, indicators, and workplan presented in the DIP and to start to plan health education strategies and activities using the AMATE methodology. (For more about Project HOPE’s training approach, see Section D, “Revisions to the Original Proposal”).

One of the early activities of the Jinotega key staff (the Program Manager, and four Technical Specialists) was to review the proposal and the feedback comments that were provided by USAID during the Application Review meeting in June 2002 in Washington, DC. Based upon the comments, the Jinotega team created a new ‘log frame’ for the project in December 2002 (since revised). The log frame was re-organized according to the MOH/Nicaragua’s approach to the integrated care for children (Atención Integral al Niño) and mothers (Atención Integral a la Mujer (AIM)) with the aim of demonstrating how the project would be implemented as an integrated package.

Starting in Fall 2002 and continuing until January 2003, candidates for the 8 health educator positions—one for each municipality that makes up the Department of Jinotega—were identified. All the positions were filled and the health educators started working in February 2003. Each of the health educators are highly qualified: each has prior experience working for the MOH as well as another NGO or PVO working in Nicaragua.

In February 2003, a second internal workshop was conducted, facilitated by an outside consultant, Ann Davenport. The HQ backstop, Virginia Lamprecht, also participated in the workshop. The purpose of this workshop was to review and re-consider the objectives and strategies, select and ‘finalize’ key indicators, and create a “HOPE vision” for the project that would prepare the full team for its discussions and negotiations with the SILAIS and stakeholders in meetings held throughout March and April as part of the DIP process. In preparation for the meeting, the main technical sections of the proposal were translated into Spanish, as well as the original monitoring and evaluation table, plus the review comments from the Application Review Meeting. This internal workshop was very valuable since all the HOPE Jinotega staff were actively involved, including the newly hired health educators, who were able to become very familiar with the project and activity participate in discussions and decisions. During the meeting, interventions were prioritized, indicators were revisited and revised, major activities were identified, and ‘gaps’ were identified in what was needed in preparation for program implementation and developing the DIP document.

## **Involvement of Project HOPE's Partners in the DIP Process**

The SILAIS (the MOH at the Department level in Jinotega) has been involved in the project since the development of the proposal in the Fall of 2001. Project HOPE/Jinotega existed before the funding of the current CS project: starting in 1999 after Hurricane Mitch, Project HOPE has been working in 3 of the 8 municipalities in Jinotega. Through its child health activities, Project HOPE is well known to the SILAIS and NGOs working locally in Jinotega.

Starting in the Fall 2002, the Program Manager and technical staff have held meetings with the SILAIS. These planning and coordination meetings will continue throughout the life of the project. The project has made presentations about the project to the SILAIS, and the SILAIS has been actively involved in the selection of interventions, strategies, and priority communities within the target area.

Various stakeholders also participated in the preparation for, and implementation of, the baseline Knowledge, Practices, and Coverage (KPC) Survey that took place in February and March. Details about the KPC Survey, including the involvement in stakeholders, are found in Section E. 2. and also in **Attachment 3**, the report of the baseline KPC Survey.

In March/April, after the KPC was completed, Project HOPE staff traveled in teams to visit the MOH staff in all 8 municipalities to provide a more in-depth orientation to the project and to obtain input into the prioritization of interventions and major activities, as well as to obtain buy-in and commitments from the stakeholders. Stakeholder meetings also took place in April with some of the owners/administrators of the coffee plantations in the municipality of Jinotega, including some of the representatives of the most important and largest companies and cooperatives. Various NGOs and PVOs were also involved in stakeholder meetings. At these stakeholder meetings, the baseline KPC results were shared along with a copy of the main M&E table included in the original proposal translated into Spanish.

During the March/April stakeholder meetings, the key stakeholders (MOH, NGOs/PVOs and the coffee plantation owners/administrators) had the opportunity to reconfirm the priority interventions and vote on the level of effort assigned to each intervention, taking into consideration four main criteria: 1) the magnitude of the problem area, in terms of burden of mortality and morbidity, 2) the importance of the problem in regards to its social and economic cost, 3) the availability of local resources to prevent or treat the problem, and 4) the cost, in terms of resources, both human and material, to address the problem. The resulting minor shifts in the level of effort assigned to each intervention as a result of the joint exercise with the key stakeholders is presented in greater detail in Section D: "Revisions to the Original Proposal".

Special meetings were held for the coffee plantation owners and administrators in April. MOH staff from the municipality of Jinotega (where the majority of coffee plantations are) also participated. In these meetings, the project explored the level of commitment and resources that the coffee plantations could offer. Most of the decision makers present expressed support and provided an indication of what resources they would be willing to offer. Most representatives present stated that they would be willing to provide some resources; such as space for consultations or allow a person on their staff to have some time to be trained and provide health education to co-workers.

In total, Project HOPE has collected over 35 letters of support, including those that outline specific commitments to the project. The group of letters of support will be included in the final version of the DIP.

Time estimates related to the preparation of the DIP in Nicaragua include approximately 21 days for field work related to the KPC, 8 days in the field collecting data from each of the eight municipalities, and 10 days in writing the DIP. The HOPE/Jinotega team was assisted in the writing of the DIP document by a consultant, Dr. Guillermo Gonzales, an expert in CS programming, as well as the staff of the Project HOPE's Nicaragua Country Office in Managua and the staff at Project HOPE's Headquarters in Millwood, Virginia. The following is a partial list of those involved in the DIP process. This list represents staff from Project HOPE, the MOH, and local NGOs/PVOs.

**Table C.1. Persons Involved in DIP Process**

Name	Title	Institution
Mario Ortega	Program Manager	Project HOPE
Alfredo Ortega	Child Health Specialist	Project HOPE
Dinorah Díaz	Women's Health Specialist	Project HOPE
Edgar Rodríguez	Monitoring and Evaluation	Project HOPE
Pedro Ramírez	Education Specialist	Project HOPE
Maria Auxiliadora Duarte	Project Director	PCI
Dr. Ismael Carranza	Director	Health Center, Bocay
Jonathan Gutierrez Blandón	Director MECD	MOH Bocay
Gilda Granados López	President	Mothers' Health Association
Rosember Castillo	MOH	MOH Cua
Fátima González López	Chief Nurse	Health Center, Cua
Dr. Luis Rugama	MOH	SILAIS
Dr. Julio Cesar Barba	Director	Health Center, Cua
Dra. Vilma Perez Vasquez	Director	Health Center in San Rafael del Norte
Hugo Dario Rivera R.	Project Manager	FONMAT
Gladis Mercedes Rugama	Director	MECD- YALI
Tomas Araúz	Chief de Filial	EMAJIN
Sandra Areas Barrera	Sub-Director	Health Center, Yalí
Marcia Rugama Osegueda	Social Technician	MI FAMILIA
Celina González	Coordinator	Brotherhood Mission
Rolando Castro López	Technician	MECD
Teresa Flores Centeno	Coordinator	Maternity House in Wiwili .
Mario Frixione	Municipal Technician	PAININ/ FUSADES
Victorino Centeno P	Vice Mayor	Mayor's Office in Pantasma
Dr. Ricardo Reyes	Director	Health Center, Pantasma
Jenny Menoflores	Auxiliary Nurse	Health Center, Pantasma

Plans for the remainder of the time before the final DIP submission include a second internal workshop for the Jinotega staff in health education methodologies facilitated by Dr. Marta Arce, and participation in the Mini-University in Baltimore by Ing. Francisco Torres, Dr. Mario Ortega, Virginia Lamprecht, Juan Carlos Alegre, and Bob Grabman.

## D. REVISIONS FROM ORIGINAL PROPOSAL

There have been no changes to the program site, location, international training costs (N/A), or the procurement plan. The number of beneficiaries is essentially the same, however, there are now revised population estimates based on 2003 derived from the National Institute of Statistics and Census (see chart below). The original number of beneficiaries stated in the proposal was 60,031 children under five and 70,827 women of reproductive age (130,858 total beneficiaries). The revised number of beneficiaries is now 62,451 children under five and 67,461 women of reproductive age (129,912 total beneficiaries).

**Table D.1. Beneficiaries**

Municipalities	Population	%	Children <5 years	WRA
Jinotega	57,881	.24	16,896	22,743
SRN	16,969	.07	3,066	3,860
La Concordia	9,421	.04	1,399	1,801
Yalí	23,335	.09	4,634	4,942
Pantasma	37,427	.15	8,599	8,307
Wiwilí	34,034	.14	11,363	10,526
El Cúa	38,384	.16	8,577	7,945
Bocay	28,686	.12	7,917	7,337
Total	246,137	1.0	62,451	67,461

Project HOPE has received approval from USAID for a revised NICRA rate and a revised budget that reflects the new associated indirect costs is presented as **Attachment 1**. Due to the revised NICRA rate, one activity within Maternal and Newborn Care will be eliminated: the creation, field-testing, and dissemination of Mothers-to-be Reminder Materials (akin the existing Mothers' Reminder Materials that alert mothers to danger signs in newborns and young children; the Mothers-to-be Reminder Materials are focused on danger signs for the mother during and after pregnancy). Project HOPE will make every effort to find additional funding to cover this activity.

The only change in the intervention mix presented in the proposal is the dropping of malaria, a decision that was made jointly with the SILIAS. The feedback from USAID last June in the Application Review suggested that the project prioritize its interventions. Project HOPE/Jinotega staff met with MOH representatives as well as other stakeholders in all 8 municipalities in Jinotega in March 2003 to receive input regarding priority interventions. As a result, malaria was dropped and there was a slight shifting of level of effort among the remaining 8 interventions (see table):

**Table D.2. Intervention Mix**

Intervention	Level of Effort	
	Proposal	Revised DIP
Maternal and Newborn Care	20	30
Nutrition and Micronutrients	15	13
Breastfeeding	10	10

Control of Diarrheal Disease	15	15
Pneumonia/Acute Respiratory Illness	10	10
Immunization	5	7
Family Planning	10	10
Prevention of HIV/AIDS	5	5
Malaria	10	-
Total	100	100

Although malaria was dropped as an intervention, HOPE will support the MOH in malaria control primarily through support of the IMCI (AIEPI in Spanish) strategy.

The descriptions of all the interventions, found in Section E.3: *Program Description by Objective, Intervention, and Activities*, have been updated and provide greater detail of the strategies and activities by intervention compared to the original proposal. A change within the Maternal and Newborn Care intervention is the elimination of the 24-hour contact support for obstetrical emergencies. The MOH has advised the project that there are not enough obstetricians in the hospital to provide advice all the time. Instead, the project will focus on the development of evidence-based protocols and the development of job aids that will be in the form of to be hung on the walls of health units.

The health facilities assessment was scheduled to be conducted prior to the submission of the DIP. However, in January, the MOH released its new *Guide for Monitoring and Supervision for First Level Care*, and the project will use the checklists and tools to conduct health facilities assessments. The *Guide* is a revised and expanded version of its predecessor, the *Totally Functioning Health Unit (TFHU) Guide*. The revised *Guide* represents the MOH's approach to ensuring quality service delivery throughout its primary care network. The *Guide* consists of standards and checklists focusing on thirteen key areas that impact quality of care and service delivery. The *Guide* focuses on the physical environment of the health facility, including equipment and supplies; the management and the quality of care provided by the staff; the satisfaction of clients; and the involvement of the community in creating a culture of quality health care. Each facility (health center and post) is designed to be assessed once every six months. Although the new *Guide* was released in January and is starting to be used, 'approved' tools (such as performance checklists for specific functions) will continue to be added as they are field tested and validated.

Since the *Guide* is being promoted by the MOH and is a standard for the entire country, the project has decided that it will use the checklists and tools suggested in the *Guide* whenever possible when conducting health facility assessments and assessing health worker performance. Therefore, the project will not conduct OR to compare the MOH's 'package' to the tools that are contained in EngenderHealth's COPE package per se, rather the project will select specific tools from the COPE only if there is a gap in the MOH set. The Jinotega senior staff has reviewed the COPE materials and they believe that there will be opportunities to adapt and field-test at least some of the COPE tools. The revised list of operations research topics appears in Section E.1. i.

Project HOPE also plans to conduct a capacity assessment of Project HOPE /Nicaragua and its main partner, the SILAIS. The capacity assessment is an intensive effort that will start with an assessment of Project HOPE/Jinotega starting in October 2003, followed later by an assessment

of the SILAIS. The outside organization that will lead Project HOPE through the capacity assessment is Pact, the same entity that successfully worked with Project HOPE/Guatemala in a similar exercise last year. The assessment of Project HOPE/Jinotega will last about three weeks and leads the organization through a series of self-assessments in key areas of management, human resources, processes, etc. that influence organizational capacity.

The number of supervision areas has changed from 4 to 8 (the number of municipalities) to better provide follow-up and feedback to direct partners, the municipalities. One health educator per municipality has been hired. (See **Attachment 6: Revised Map of Target Area**). Although the project will work in a total of 731 out of the 756 in SILAIS Jinotega, the project's stakeholders have identified 80 priority communities (10 in each of the 8 municipalities) where special efforts will be made to improve the communities' health. (See **Attachment 9: List of Priority Communities**).

The project has decided to work with the coffee growers only in the municipality of Jinotega, since this is the area that has the most coffee farms. The following is a list of the local health post and the coffee farms that fall within the catchment area of the health post. All coffee farms listed are located in the municipality of Jinotega.

**Table D.3. Health Posts and Coffee Farms in the Municipality of Jinotega**

<b>Health Posts and the Important Coffee Farms that are in their Catchment Area</b>		
<b>Name of Health Post</b>	<b>Coffee Farms/Haciendas</b>	
<b>Pueblo Nuevo</b>	Jesús Maria Santa Gertrudis Santa Maura. Corinto Finca La Trampa	Las Lajas Cooperativa Luis Hernández El Gobiado
<b>La Colonia</b>	Colonia Santa Isabel	Nogales Unión
<b>Asturias</b>	Santa Elena San José Ciudadela San Ramón La Florida	El Triunfo Potrerillos San Enrique Monterrey Santa Rita
<b>Ernesto Acuña</b>	Viola Perla Perlita Posa Redonda América	Escambray Sonora Ronald Paredes Consuelo
<b>La Fundadora</b>	Fundadora Aurora Agriscrip Agrisol Parranda Palestina Sultana Limón Camelias Nubes	Fátima Pedrera Paraíso Papales Las Mercedes Salvadora Quetzal Paraisito Santa Enriqueta Mascota

The project's approach to training is somewhat different than what was presented in the proposal. Project HOPE had characterized its approach to training as a cascade—where the project would train master trainers, who would train the highest level of health care worker, who would in turn train the next level down, etc. This approach assumes that those trained are good trainers, and that little quality is lost as one progresses down through the system to the level of the community health volunteers, who are often the first point of contact for clients entering the system. In discussions with the SILAIS, the project developed an alternative approach to training where 1) Project HOPE will assist the MOH to train a cadre of 54 facilitators who work for the SILAIS across Jinotega; 2) the facilitators will train other MOH staff, at first with assistance from Project HOPE, and 3) wherever possible, the facilitators would train teams of health care providers from the same area together, eliminating to the greatest extent possible the number of health providers who are not directly trained by a facilitator. See ***Attachment 10: Two Year Plan for Educational Programs*** for a summary of major trainings and educational programs that will be conducted during the first two years of the project. The table includes, by intervention, the topics, learning objectives, target group, training methodology, duration, and the parties responsible.

Specific responses to the proposal review comments are included as **Attachment 2: Response to Application Debriefing**.

## **DETAILED IMPLEMENTATION PLAN**

### **E. 1. Program Monitoring and Evaluation Plans**

#### **a. Information System**

The MOH of Nicaragua has institutionalized a standardized information system both for the Health Units (HUs) and the communities. Community health volunteers report monthly all health interventions provided by them, this information is analyzed in cooperation with health units' personnel and incorporated to health units' service provision records. Finally, all the information is channeled to the health centers and then to the SILAIS. At the health center level, the results of data analysis are made available to all health personnel and CHVs through the 'situation rooms' (salas de situacion) methodology, by the way of charts and graphs that provide a quick summary of the health situation for the municipality and communities, with regard to specific health problems or indicators.

The 'situation rooms' methodology uses programmatic data for decision-making. When functioning properly the 'situation rooms' is a powerful tool that can inform the way resources are used and determine priority activities. Local data that is compiled and analyzed can be displayed on the walls of health units so that community health volunteers and members are aware of the most important threats to health that exist in their immediate environment. They can also track progression or recession of a health problem or issue over time.

Through the current MOH health information system, data provided by CHVs should be analyzed at the HU with health personnel, problems identified and solutions sought at this level. Information provided by HUs to health centers should also be analyzed before forwarding it to

the SILAIS level. After a thorough analysis at this level, appropriate solutions and advice should flow to all levels. Different problems curtail the correct performance of this system. One of the main problems of this system is the lack of printed materials for the CHV's information collection work, which forces verbal reports in some cases. The project plans to support the work of the CHVs by printing reporting forms that they can use to make and submit written reports.

Project HOPE will use the MOH health information system and will support activities to adapt, validate and implement a system that facilitates an efficient use of information at all levels. Project HOPE had good results designing and adapting instruments for data collection in the community during the child survival program in Boaco, in cooperation with the SILAIS. Selected instruments will be shared with the SILAIS Jinotega to evaluate their potential usefulness and value for the program and for possible adoption into the MOH HIS.

During the routine monitoring and evaluation process, Project HOPE will support the SILAIS' activities for monitoring of result indicators. Project HOPE will also carry out direct data collection activities through the work of its educators and supervisors as they collect data used to monitor the project.

#### b. Monitoring Tools

Throughout the project implementation, Project HOPE will use the MOH's tools for monitoring and supervision of the first level services (*Guide for Monitoring and Supervision for First Level Care*) (*Guia de Monitoreo y Supervision del Primer Nivel* in Spanish), that builds on the earlier version and concept of the "Fully Functional Health Units (FFHU)". In order to accomplish this, the SILAIS and Project HOPE have decided that is important to develop support mechanisms for the implementation of monitoring activities both at the health posts and health centers.

Monitoring using the FFHU tools has been strengthened through field-testing carried out in collaboration of the PROSALUD Project and the MOH, supported by PROSALUD partner organizations, with its final institutionalization as the *Guide for Monitoring and Supervision for First Level Care*.

The monitoring and evaluation process requires the selection of information sources that are accessible, systematic and low cost. Information needs to be able to be processed both manually and through computer-based systems. The end result should be information that is easily assimilated into the MOH health information system, facilitating its analysis and feedback to all levels, including the communities.

The project will use LQAS periodically, which is a straightforward sampling method, low cost and quick, facilitating the analysis and decision-making. The *Guide for Monitoring and Supervision for First Level Care*, (formerly FFHU) includes tools for basic management of the different MOH programs and protocols, as well as exit surveys to evaluate user's satisfaction.

#### c. Data Collection

The collection of health information data by CHVs and health units will be the main source of information for monitoring of program indicators and activities progress. Project HOPE

purposely will avoid creating a parallel system of data collection. Project HOPE health educators will, however, conduct routine parallel data collection of key intervention indicators during their daily work with health units and the communities. The educators will be monitored by area supervisors. The use of electronic forms and PDAs technology will guarantee the efficiency of this process; this activity does not imply an additional cost to the program. Other sources of information include health units' records and exit surveys.

Monitoring of health units by the SILAIS through the FFHU tools will be supported by Project HOPE and implemented according to the existing MOH schedule every six months. Because of the use of the LQAS methodology the population denominator is always set by 19 per supervision area. When applying the survey to different age groups (i.e. 0 to 11 and 12 to 23) the denominator is adjusted accordingly.

#### d. Data Analysis and Monitoring Program Progress

Information processing will be done using tabulation tools both manual and computer based, depending on the process to be monitored. In order to guarantee the effectiveness of this approach, Project HOPE is assigning a monitoring and evaluation specialist, and an information systems specialist to this activity. They will be responsible for identifying/developing the necessary tools, identifying key indicators for priority interventions with the SILAIS and consolidating all information for analysis, according to established criteria for each strategy. These specialists will also guarantee the correct flow of information to and from partners.

All processed information; analysis and reports will be shared with the MOH both at the SILAIS and municipal levels, and then to the health posts, which in turn will provide feedback to the CHVs, adjusting or reinforcing current activities in the community.

Beside the use of data analysis for the situation rooms, an annual table will be prepared summarizing main indicators of the Health Information System targets, and current levels achieved to date. The main objective of the joint work of HOPE and the SILAIS is to improve the quality of information and the regular use of data for decision making based on evidence with the goal of increasing project activities impact.

Monitoring results will be shared with stakeholders during routine meetings of the Jinotega Department Health Commission and decisions made about the need to elevate information about needs, limitations, or progress to higher authorities of the MOH, PVOs/NGOs or donor community.

#### e. Methods to Monitor Health Worker Performance

As defined by the project, the MOH at the municipality level will be responsible for all project interventions. It will train and supervise health personnel and CHVs, with the technical and financial support of Project HOPE. The MOH/ SILAIS will guarantee compliance with quality standards for health services provision to mothers and children in the project area.

The main tools for monitoring health worker performance will be selected from the *Guide for Monitoring and Supervision for First Level Care* whenever possible. If the *Guide* does not have an appropriate tool, the Project HOPE will identify/adapt appropriate tools from existing

materials (such as EngenderHealth's tools). Promising new tools to measure performance will be tested and, if successful, will be recommended to be included in the MOH's *Guide*.

f. On-going Assessments of Essential Knowledge, Skills, Practices, and Resources to Improve Quality of Services

The use of the *Guide for Monitoring and Supervision for First Level Care* (FFHU) methodology includes references for essential knowledge, performance skill levels, and norms and protocols for patient care. The project will make extensive use of the FFHU tools; with the SILAIS playing the main role on their application according to already set monitoring schedules. The project will draw from this data, analyze it in cooperation with SILAIS counterparts and make necessary adjustments to training and supervision components to correct any identified deficiencies.

g. Tools to Promote Quality of Service

The project is placing special emphasis on improving the quality of monitoring and evaluation activities. Project HOPE Nicaragua has a wealth of experience with networking work of NGOs and PVOs, sharing tools, experiences and methodologies not only for M&E but also in other areas such as educational materials and resources. For the evaluation process, HOPE will have the support of NICASALUD, MOST and probably other projects. (NICASALUD is a network of over 20 PVOs/NGOs in Nicaragua and MOST is a nutrition-focused project funded by USAID).

In order to promote quality at the health services, Project HOPE will train health units and community personnel with training plans adapted from the already established MOH curricula. Each training activity will be evaluated by a post-test to measure effectiveness of the training process. During the monitoring process at work, there will be a on-the-job performance evaluation every six months, regarding subjects covered during training, and using the established monitoring and supervision guides, in order to provide feedback on case management according to MOH protocols.

Following the same schedule, an evaluation of availability of medical supplies and equipment for the maternal and child programs will be conducted. This will be accomplished following quality standards established by the MOH.

h. Strengthening Monitoring and Evaluation Skills of Local staff and Partners

The strengthening and/or creation of 'situation rooms' in the municipalities is an already institutionalized strategy of the MOH, being supported at all levels and by different organizations.

LQAS is a low cost tool that is being introduced across the SILAIS for selected M&E efforts and could be sustained by the MOH for M&E. The use of the LQAS methodology can be done during routine visits to the communities without increasing cost for an independent M&E activity.

The combined use of more efficient data collection methodologies, such as LQAS, and the use of the ‘situation rooms’ strategy, supported by better management tools such as Total Quality Management, complementing the *Guide* protocols with management tools which guarantee its effective application and should provide a favorable environment to support a sustainable M&E process by the SILAIS Jinotega.

#### i. Operations Research

Operations research will be implemented to 1) evaluate the perceived quality of care for mothers having deliveries in health units using tools from the *Guide*; 2) evaluate adequacy of the *Guide*’s (FFHU) tools to monitor quality in health facilities; 3) identify barriers for early initiation of breastfeeding and exclusive breastfeeding; 4) document the introduction and CBDAs in areas that lack access to FP and assess the quality of FP counseling offered by the CBDAs, and 5) to identify success stories and lessons from CORUs. Additional OR opportunities may be identified in cooperation with the SILAIS, and may include 1) evaluating distance learning modules and methodologies (in collaboration with the Autonomous University of Nicaragua), 3) field testing new HIS forms, and 4) creating job aids for health facility staff, especially in the area of normal births.

### **E. 2. Summary of Baseline and Other Assessments**

Project HOPE carried out a population level baseline survey of Knowledge, Practice, and Coverage (KPC) among mothers of children under two years of age in Jinotega, Nicaragua. The KPC survey was carried out by the technical team of Project HOPE Jinotega and external personnel with experience in this type of surveys.

To obtain the baseline information, the Project HOPE team used the Lot Quality Assurance Sampling (LQAS), a stratified random sampling methodology. In addition, parallel sampling was used to better understand two groups: mothers with children 0-11 months of age, and mothers with children aged 12-23 months. For each of these groups, slightly different instruments were used. Measurements for weight, height, and hemoglobin levels were also taken for children under two years of age, and hemoglobin levels for mothers, using the universally accepted HEMOCUE equipment. The team composed of MOST, UNAN, MINSA Central, NICASALUD and Project HOPE provided training for weighing, height measuring, hemoglobin, sampling, and LQAS methodology. The sample size was 19 mothers with children under two years of age in each of the two groups 0 to 11 and 12 to 23 months of age, for each Supervision Area (SA=8), with a subtotal of 152 mothers by age group, and a grand total of 304 interviewed mothers selected randomly.

Data collection took place approximately within a two-week period. Ten survey teams were formed with one supervisor and one interviewer in each team. Quality control was done by six staff members from Project HOPE and stakeholders, who used a quality control checklist during the interview process. In addition, this CS program pilot-tested the use of electronic Portable Digital Assistants (PDAs) for data capturing and analysis.

**The analysis was done using LQAS tabulation forms in the field. Average coverage rates (non-weighted) were calculated for CS indicators—including Rapid CATCH ones—for**

the entire program area. In addition, adjusted coverage rates (weighted) were calculated for each indicator based on population size. Finally, 95% Confidence Intervals (CI) were calculated for each indicator considering population size for each SA.

The following table provides a comparison of baseline findings with the current country statistics from the most recent DHS survey conducted in Nicaragua:

Indicator	Jinotega – KPC 2003	Jinotega – DHS 2001	Nicaragua – DHS 2001
Median duration of BF	2.7 months	3.3 months	2.5 months
HFA (<2Z)	19.8%	36.7%	20.2%
WFA (<2Z)	7.6%	19.4%	9.6%
IMR	N/a	40 per 1,000 live births	31 per 1,000 live births
% of mothers giving the same or more liquids during diarrhea to their child	69.1%	N/a	71.1%*
% of mothers giving the same or more food during diarrhea to their child	45.5%	N/a	43.5%*
% of children with cough and fast breathing	59.7%	35.4%	30.9%

\* in rural areas

With regard to the most up-to-date coverage estimates in the service area, the following table summarizes key indicators from the recent KPC baseline survey carried out by Project HOPE.

#### List of key indicators in the program service area

Indicator (for the entire project area)	Numerator	Denominator	Average Coverage Rates (%)	Adjusted Coverage Rates (%)	95% C.I. (+ / -)
1. % of children aged 0-23 months weighed in the last four months according to growth monitoring card.	205	278	73.7	67.9	6.0
2. % of children aged 0-23 months with low weight (Weight-For-Age) (<2Z).	20	304	6.6	7.6	3.5
3. % of children aged 0-23 months stunted (Height-For-Age) (<2Z).	58	304	19.1	19.8	4.9
4. % of children aged 0-23 months with anemia (hemoglobin level < 11mg/dl).	121	304	39.8	41.9	6.1
5. % of mothers of children aged 0-23 months who report having breastfed within the first hour after birth	204	301	67.8	67.8	5.9
6. % of mothers of children aged 0-23 months who report having breastfed within the first 8 hours after birth.	248	301	82.4	82.4	4.7
7. % of infants aged 0-5 months who received only breast milk in the past 24 hours.	46	79	58.2	56.0	12.5
8. % of mothers of children aged 0-23 months that know at least two signs of dehydration due to	86	304	28.3	26.9	5.5

diarrhea.					
9. % of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheal episode.	40	119	33.6	35.7	8.8
10. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child.	52	113	46.0	45.5	9.5
11. % of mothers with children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child	83	119	69.7	69.1	8.8
12. % of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit.	58	96	60.4	59.7	10.6
13. % of mothers of children aged 0-23 months who can identify fast breathing as a danger sign for pneumonia.	226	304	74.3	76.0	5.2
14. % of children aged 12-23 months with all recommended vaccines at the moment of their first birthday according to the growth monitoring card.	107	152	70.4	68.7	8.2
15. % of mothers of children aged 0-23 months who know at least one way to prevent STIs-HIV/AIDS.	134	304	44.1	43.3	6.0
16. % of children aged 0-23 months who were born at least 24 months after the previous surviving child.	255	304	83.9	83.9	4.5
17. % of mothers of children aged 12-23 months who desire no more children in the next two years, who are using some type of modern child spacing method.	86	138	62.3	65.3	8.7
18. % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.	271	304	89.1	89.0	3.8
19. % of mothers of children aged 0-23 months that report receiving on their arm the dT vaccine during the last pregnancy.	260	304	85.5	85.4	4.2
20. % of mothers of children aged 0-11 months who report having had at least one postpartum visit.	57	152	37.5	32.4	7.9
21. % of children aged 0-23 months whose birth was attended by a doctor or nurse.	159	304	52.3	51.4	5.8

Due to the remoteness of the vast majority of target communities, utilization of health services is quite low. Consequently, the client-health worker interaction at the facility level is somehow limited, and in some cases rare. The KPC survey revealed that only half of births were attended at a health facility for the entire Department in Jinotega. In addition, half of health facilities have electricity and two-thirds do not have a telephone. Only 8% of facilities can transfuse blood, and less than 2% are equipped to provide cesarean sections. Almost all (80%) of facilities lack a link to emergency transportation system (Measure 2000). Although availability of drugs is not a serious issue, medicines are sent to facilities with no trained personnel to prescribe them. At the community level, the community health volunteers, composed mainly by brigadistas (or health promoters) and TBAs, are the main link with clients; these relationships tend to be solid based on

trust between clients and providers. However, quality of care varies a lot since not all providers are properly trained.

With regard to case management policies, Nicaragua is in the process of adopting an integrated approach (AIN model) for childhood diseases. Protocols and guidelines are being developed for both facility and community levels.

The following table summarizes the Rapid CATCH indicators collected from the KPC survey by Project HOPE in Jinotega last March 2003.

Indicator (for the entire project area)	Numerator	Denominator	Average Coverage Rates (%)	Adjusted Coverage Rates (%)	95% C.I. (+ / -)
1. % of children aged 0-23 months with low weight (weight for age) (<2Z).	20	304	6.6	7.6	3.5
2. % of children aged 0-23 months who were born at least 24 months after the previous surviving child.	255	304	83.9	83.9	4.5
3. % of children aged 0-23 months whose birth was attended by a doctor or nurse.	159	304	52.3	51.4	5.8
4. % of mothers of children aged 0-23 months that received two doses of the dT vaccine during the last pregnancy, according to health card.*					
5. % of infants aged 0-5 months who received breast milk only in the past 24 hours.	46	79	58.2	56.4	12.5
6. % of children aged 6-9 months who received breast milk and complementary feeding in the past 24 hours.	37	46	80.4	86.8	8.9
7. % of children aged 12-23 months with all recommended vaccines at the moment of their first birthday according to the growth monitoring card	107	152	71.1	69.6	8.1
8. % of children aged 12-23 months that received the MMR vaccine according to the growth monitoring card	108	152	71.1	69.6	8.1
9. % of children aged 0-23 months who slept under an impregnated mosquito net the previous night*					
10. % of mothers of children aged 0-23 months that know at least two signs of childhood illnesses indicating the need for treatment	132	304	43.4	46.8	6.2
11. % of children aged 0-23 months that received more liquids and continued feeding during an illness in the last two weeks	90	163	55.2	53.4	8.4
12. % of mothers of children aged 0-23 months who know at least two ways to prevent STIs-HIV/AIDS	18	304	5.9	6.3	3.2
13. % of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	58	304	19.1	19.2	4.9

\*to be collected at midterm and final KPC surveys

### **E.3. Program Description by Objective, Intervention and Activities**

#### **E. 3. a. Program Objectives and Support of CSHGP's Intermediate Results**

The Child Survival and Health Grants Program Activity Objective is “U.S.-based PVOs and their local partners carry out effective, quality child and maternal health and nutrition, population, HIV/AIDS, and infectious disease programs that measurably improve infant, child, and maternal health and nutrition, and contribute to the reduction of infant, child, and maternal mortality.” CSHGP has three Results under its Program Activity Objective: 1) Increased quality of child and maternal health nutrition, and infectious disease programs implemented by PVO and their partners; 2) Increased sustainability of child and maternal health and nutrition, and infectious disease programs/interventions initiated by PVOs and their partners, and 3) Child and maternal health and nutrition, and infectious disease strategies, tools and approaches developed, tested and applied.

The overall objective for the CS program in Jinotega is “Improved the health of women of reproductive age and children younger than 5 years old in Jinotega's rural areas”. The project's main objective per intervention include:

3. Improved quality of maternal and neonatal care services provided in health units
4. Improved nutritional status of children less than 5 years old
5. Improved practice of breastfeeding in children aged 0-23 months old
6. Improved immunization coverage for children under 2 years of age
7. Improved quality of healthcare for children with diarrhea.
8. Improved quality care for children with pneumonia
9. Increased birth intervals in mothers with children aged 0 to 23 months old
10. Increased awareness of how to avoid getting HIV/AIDS

The Child Survival Program in Jinotega clearly supports the result objectives of USAID's Child Survival and Health Grants Program. The emphasis is on improving the quality of services for maternal care, nutrition, and the integrated management of childhood illness in both facilities and in rural communities. The program is also aimed to improve immunization coverage, and increase the awareness of how to avoid becoming infected with HIV/AIDS.

#### **E. 3. b. Intervention Specific Approaches**

##### **MATERNAL AND NEWBORN CARE (30%) Result: Improved quality of maternal and neonatal care services**

**Rationale.** Jinotega is characterized by high fertility (TFR: 6.3 (WFP 2002)), high maternal mortality (267 versus 150 nationally (WFP 2002; MOH 2001), and high perinatal mortality (21%), similar to the national average (2001 Nicaragua DHS; MOH Jinotega estimates for 2001). The most common causes of maternal mortality include postpartum hemorrhage, infections, unsafe abortion, eclampsia, and obstructed labor. Prenatal care is limited: less than half of the women in Jinotega receive adequate prenatal care (Health Facility Survey in Nicaragua, Measure Evaluation, 2000). Only half of health facilities have electricity and two-thirds do not have a telephone. Only 8% of facilities can transfuse blood, and less than 2% are equipped to provide

cesarean sections. Almost all (80%) of the health facilities lack a link to an emergency transportation system (Measure 2000). In the first quarter of 2003 alone, there were 10 reported maternal deaths reported in the Department of Jinotega.

**Household Behaviors and Care-seeking Practices.** Women are faced with numerous constraints in accessing quality maternal care: (1) Jinotega is very rural and women do not often live near the closest health unit; (2) transportation costs are often prohibitive; and (3) women are not independent agents (most must have their partner's permission to access health care and cannot easily leave their children). For many women, prenatal care consists of seeing a local TBA. According to Project HOPE's recent baseline KPC survey, one-third (32%) of women give birth at home with a TBA present. Only half of the TBAs have received formal training of any kind. Most TBAs provide massage to ease birth, but are not able to do more complex maneuvers to save a woman's life during an emergency. Only about one-third are equipped with clean-birth kits. Many women are also faced with other threats to their health: 37% of pregnant women report that they have received punches from their partners while pregnant (1998 Nicaragua DHS). In one year alone, more than a quarter of the women reported sexual and physical violence at the hand of their partner (DHS 2001).

**Main Strategies for Behavior Change and Quality Assurance.** The project's main strategies include 1) improving the quality of care, especially the skills and performance of health staff in health facilities, 2) improving timely seeking of services, especially when where there are complications that are identified before, during, and after birth, 3) improving the knowledge and skills at the community level so that maternal health is promoted and births are safer. The project will support the MOH in its approach to maternal and newborn care, called the Integrated Care of the Woman (Atención Integral de la Mujer or AIM in Spanish). This approach consists of the following components:

Components of Essential Maternal and Neonatal Care (AIM Program, Nicaragua)				
Pre-pregnancy	Pregnancy	Birth	Neonatal Care	Postpartum
<ul style="list-style-type: none"> <li>▪ Nutrition</li> <li>▪ Family Planning</li> <li>▪ Screening and treating STIs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Focused prenatal visits</li> <li>▪ Nutrition</li> <li>▪ Immunizations</li> <li>▪ Promote effective practices (including traditional)</li> <li>▪ Avoid ineffective practices</li> </ul>	<ul style="list-style-type: none"> <li>▪ Safe and clean delivery</li> <li>▪ Use of partogram</li> <li>▪ Prevention of infections</li> <li>▪ Active management of labor during third phase</li> </ul>	<ul style="list-style-type: none"> <li>▪ Dry, stimulate, and keep the infant warm</li> <li>▪ Breastfeeding early and exclusively</li> </ul>	<ul style="list-style-type: none"> <li>▪ Breastfeed early and exclusively</li> <li>▪ Nutrition</li> <li>▪ Link with FP services</li> </ul>
Managing Complications				
Pre-pregnancy	Pregnancy	Birth	Neonatal Care	Postpartum
<ul style="list-style-type: none"> <li>▪</li> </ul>	<ul style="list-style-type: none"> <li>▪ Anemia</li> <li>▪ Pregnancy-induced hypertension</li> <li>▪ Control of infections</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hemorrhage</li> <li>▪ Sepsis</li> <li>▪ Obstructed labor</li> <li>▪ Eclampsia</li> <li>▪ Postpartum</li> </ul>	<ul style="list-style-type: none"> <li>▪ Asphyxia</li> <li>▪ Low Birth Weight</li> <li>▪ Infection control</li> <li>▪ TTV</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hemorrhage</li> <li>▪ Sepsis</li> </ul>

	STIs (syphilis, HIV/AIDS, hepatitis)	care		
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*Facility-based Strategies: Improving Quality of Care Through Quality Assurance and Performance Improvement.* One of the main foci of the project is to 1) increase the number of health facility staff who are skilled in managing normal birth and have on hand the proper equipment and materials to ensure a safe birth for the mother and the newborn, and 2) make it easier for those attending births to do their jobs. The project will focus on improving the management of normal births at the health centers and early recognition and transport to the referral hospital in Jinotega when there are complications. The project will also place a great emphasis on utilizing standard protocols for all procedures relating to taking care of the pregnant and postpartum mother and newborn. The project will work closely with the SILAIS and MOH at the national level to introduce international protocols published by WHO in 2000, known as the IMPACT guide for pregnancy complications.

*Community-based Strategies.* The project's main strategies at the community level will be the promotion of healthy pregnancies as well as improving the skills of TBAs and birth attendants in the home who are with mothers at the time of birth. Every effort will be made to transport women to a health facility whenever possible, however, the majority of women in Jinotega give birth at home, and for many of them, getting to a health facility to give birth is an arduous task, especially in the very rural areas of the Department. In the community, the project will focus on promoting prenatal care and nutrition, recognition of danger signs, transport plans in case of complications, safe births, and immediate newborn care (focusing on early initiation of breastfeeding, and keeping the baby warm and dry). TBAs and CHVs will be trained using adult learning techniques and participatory methodologies. The CHVs will focus on increasing awareness among *all* community members of the importance of supporting the health of women before, during, and after birth. They will stress the importance of prenatal care (Vitamin A, folate, and iron supplements; tetanus toxoid injections) and the need for a trained birth attendant—someone trained in obstetric first aid—to be with the mother during labor. Postpartum care will include immediate care for the newborn, including keeping the infant warm and dry and supporting breastfeeding (BF) initiation during the first hour following birth, and for the mother, rest, hygiene, and monitoring for danger signs/complications). Emphasis will be placed on early recognition of potential complications in the mother (infection and hemorrhage) and newborn (jaundice, diarrhea, fever, inability to suck or breathe properly) so that decisions to seek care will not be delayed.

Local health facility and project staff will also work with communities and coffee plantation networks to develop emergency plans to ensure that transportation can be accessed when necessary. The focus on health facilities will be on increasing access to quality care. Clinic self-assessments will review gaps in care and help prioritize areas for improvement. To identify ways to increase utilization of services and client satisfaction, HOPE will employ techniques such as the “positive deviant” assessment, and quality/performance improvement methods such as EngenderHealth COPE (Client-Oriented Provider Efficient) tools.

In addition, HOPE will strengthen referral networks, linking communities to health facilities, including health center and MOH posts, private clinics on the coffee plantations, and the local “maternity waiting houses,” which are designed to increase the chances that appropriate care is

available, especially for higher-risk pregnancies. These services will be linked to community emergency transportation systems, hospital with health units, posts health where is available radio communication.

A key factor in quality improvement of maternal and newborn services will be the involvement and oversight of the strengthened Health Council in Jinotega to solve problems and find solutions to stockouts and staff vacancies. Planning—based on Knowledge, Practice and Coverage (KPC), HIS, and health facility assessment data—will improve the ability of SILAIS Council members to increase the number of facilities that are consistently equipped and supplied with the tools and commodities, necessary to provide a full range of obstetric and newborn services.

**Commodities.** Project HOPE also is working with the MOH and the GOG to increase donor supplies of essential commodities and provides supplies through its Gift-in-Kind program.

### **NUTRITION AND MICRONUTRIENTS (13%) Result: Improved nutritional status of children less than 5 years old**

**Rationale.** According to the Second National Micronutrients Survey, carried out in Nicaragua in 2000, 34% of children 6 to 59 months old presented anemia. There is no specific data for children 0 to 23 months of age. A recent survey (Plan Modular 2001-2003 SILAIS Jinotega, September 2001) of children living in coffee-growing areas found 43% stunted, while 2% were wasted. The micronutrient situation in coffee-growing regions is worse than the national norms. From the KPC results it was found that 80% of children from 6 to 23 months of age had records of Vitamin-A supplementation on their health cards during the last six months, and 38% had registered iron supplementation during the same period. It was not possible to identify specific supervision areas with the greatest needs.

Subclinical Vitamin A deficiency (VAD) in the Central Rural Region was 10%, the second highest of all geographical regions (MOST, 2000). Sugar fortification with Vitamin A started in 2000; now four out of five main producers sell a fortified product. Anemia affected 29% of rural children and 19% of rural mothers, according to the 2<sup>nd</sup> micronutrient survey (MOST, 2000). Iodine deficiency remains a public health problem in Jinotega. Low iodine urinary excretion among first grade children was 22% in Rural Central area, the highest in the country (MOST, 2000). The MOH is developing a food fortification strategy for the main micronutrients: iodine, through the fortification of salt; iron and folic acid, through the fortification of flour; and Vitamin A, through the fortification of sugar.

**Household Behaviors and Care-Seeking Practices.** Complementary feeding in Jinotega starts around 1.7 months. In rural areas, weaning foods include bean soup, banana and other fruits. Maternal practices have not been documented, but anecdotal information indicates that priority is given to the father and male family members. Beans—one of the main staples—are iron-rich, but the excessive consumption of coffee during meals interferes with iron absorption. Almost half of children 0-23 months of age drink coffee as revealed in the KPC baseline survey. The vast majority (95%) of women said they received supplements during their last pregnancy.

The project will work under the AIN model currently being developed by the MOH. The AIN model, based on the experience in Honduras, focuses on regular community-based weighing of

children under two years of age and monitoring their growth while providing counseling to mothers or caretakers in improved feeding practices.

HOPE will contribute to the health services of the MOH and partners by strengthening nutritional management with active technical support consistent with the local norms. In intervention areas of the program, HOPE's current community-focused IEC approach will be used, while the community AIN model is approved by the MOH and implemented. The cultural barriers to the adoption of more nutritious practices (i.e., the addition of oils to foods) will be explored to find a way to overcome them. (Note: This exploration will be integrated into AIN-C consultations and counseling, and is not a separate OR activity).

### ***Main Strategies for Behavior Change and Quality Assurance***

*Facility-based Strategies* – The project's main effort will be to integrate nutritional counseling into all consultations with mothers with young children and to identify nutritional deficiencies and those children who are failing to thrive. Health personnel will be also trained in home-based nutritional rehabilitation (IMCI).

*Community-based Strategies* - In target communities, the project will support the MOH and NGOs that are training and supervising community-based providers so they can in turn support and monitor community-based nutritionally-focused activities, including providing counseling to mothers who take an active role in GPM. The providers will also support peer-to-peer counseling among community members, including those who are participating in mothers' groups.

- **Nutrition awareness** – The project will develop an IEC plan in coordination with the SILAIS in Jinotega. The aim of the plan will be to promote care-seeking practices and timely recognition of danger signs. Messages already designed and validated by the MOH will be used. The Positive Deviance/Hearth methodology will be used to identify the “positive deviants” and to develop messages based upon health nurturing practices. Using the Positive Deviant/Hearth approach, local knowledge will serve as the basis for behavior change communication (BCC). Preparations using local foods and recipes will be explored with mothers. HOPE will liaise with agencies (e.g., agricultural associations, women and men clubs), that are carrying out other interventions with nutritional impacts.
- **Nutritional surveillance** - The project will increase both the coverage and quality of “routine” anthropometric data collected during growth monitoring and promotion (GMP) sessions (community AIN) as an early warning system. The project does not plan to use donated food extensively, but will create links with PVOs conducting Title II and other food programs in case there is a need for a rapid response. The project will identify 10 communities per municipality (the 80 ‘priority communities’) for conducting GMP sessions. These communities will be identified with the MOH and municipalities. In addition, coffee plantations will be included; those plantations will be selected together with the project partners.
- **Improving micronutrient surveillance** - The project will improve the capability of the SILAIS to monitor micronutrient deficiencies, particularly iron deficiency (anemia) by monitoring hemoglobin levels through the use of the Hemocue.
- **Facility-based IMCI** - Providers will be taught to use every contact with mothers as a counseling opportunity. Instead of being proscriptive, providers will seek to negotiate changes with the mother or caretaker. The project will use training methodologies and counseling tools already adapted and validated by the MOH. Individual counseling will give the mother the final word in the choice of interventions. Consistent with AIN, basic

messages will include (1) feed the child a varied diet; (2) include energy-dense preparations; (3) prepare three meals a day plus two snacks; (4) promote active feeding. Dietary counseling will be integrated into health services. (Health facility staff members are trained, as part of AIN-C, in nutritional counseling, negotiation skills for improved nutritional practices, and principles of behavior change).

- **Vitamin A and Iron supplementation** – The project will support the MOH during the supplementation campaigns targeted to children 6-60 months of age. The project will not provide supplements, but rather provide resources in the field to facilitate the MOH with the Vitamin A and Iron campaigns. Through the MOH, the project will seek close coordination with other NGOs and PVOs in Jinotega to improve the effectiveness of the campaigns and to avoid duplication of efforts.

### **BREASTFEEDING PROMOTION (10%) Result: Improved practice of breastfeeding in children aged 0-23 months old**

**Rationale.** Mother's milk contains vital nutrition and protects newborns from two of the greatest causes of neonatal death—diarrhea and pneumonia. Exclusive BF also inhibits fertility, which can lengthen the birth interval and contribute to increased child survival. Although there is evidence that health talks about BF are common in Jinotega health facilities, a recent health facilities assessment did not report that exclusive BF teaching or counseling as a service was offered (Measure, 2000). Neither is Lactational Amenorrhea Method (LAM) mentioned as a Family Planning (FP) method offered in the health facilities. The lack of clear tracking of exclusive BF and use of LAM may indicate insufficient programmatic emphasis on LAM. Anecdotal data suggests that health providers are often unable to report the difference between exclusive BF and LAM.

**Household behaviors and care-seeking practices.** Breastfeeding is almost universal in Jinotega but optimal breastfeeding (initiation within one hour of birth, exclusive breastfeeding for the first 6 months) is not widely practiced. In Nicaragua, about three-quarters (76%) of women initiate BF within the first hour (DHS 2001), compared to 74% in Jinotega (DHS 2001). The median number of months that women breastfeed in Jinotega is 21 months; exclusive breastfeeding lasts on average 3.3 months (DHS 2001). The median number of months that infants are exclusively breastfed in Jinotega is a mere 2.27 months (Baseline Project HOPE KPC Survey (Jinotega) 2003), although BF with supplementation continues on average until infants are about 20 months. About 95% of newborns are breastfed during the first day of life (Baseline Project HOPE KPC Survey, 2003). Intensive work has been done in Jinotega in recent years to increase the prevalence of exclusive BF (under a project with NICASALUD; HOPE was part of this effort), EBF for the first 6 months reached 75% in select target areas). According to Project HOPE's recent baseline survey, 56% of mothers are exclusively breastfeeding their infants 0-5 months.

**Main Strategies for Behavior Change and Quality Assurance.** The project's main strategies to promote optimal BF behaviors include 1) increasing awareness among community members about the benefits of breastfeeding, 2) creating an environment of support and encouragement for optimal BF within facilities and among health facility staff, and 3) involving decision-makers in activities aimed to promote behavior change. To increase awareness of the importance of optimal BF practices, the project will conduct formative research to identify the key determinants that influence the early initiation of BF and exclusive BF for the first six months of life. At the

community level, 400 community health volunteers (CHV) will be trained BF and LAM counseling and promotion. (Recent MOH research has indicated weaknesses in effective counseling on the part of providers). At the facility level, 110 providers will be trained in counseling techniques and how to best negotiate with mothers in adopting new behaviors. (National norms already exist for EBF, appropriate weaning, complementary feeding, and FP use while BF). In addition, mothers' clubs will be formed, and fathers will be invited to participate in select activities to increase their support for optimal BF practices. The project will also support the MOH's strategy titled, "Health Units Friendly to Mothers and Children"—one of their goals is to form mothers clubs in the 80 priority communities.

Within facilities, the MOH is promoting its "Eleven Steps to Successful Breastfeeding" adapted from WHO's "Ten Steps to Optimal Breastfeeding." The eleven steps are:

1. Train all health care staff in the "Eleven Steps" policy.
2. Inform all pregnant women about the benefits and management of breastfeeding.
3. Help mothers initiate BF within an hour of birth.
4. Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.
5. Give newborn infants no food or drink other than breastmilk, unless medically indicated.
6. Practice 'rooming in' by allowing mothers and infants to remain together 24 hours a day.
7. Encourage breastfeeding on demand.
8. Give no pacifiers, dummies, or soothers to breastfeeding infants.
9. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or birthing center.
10. Form local BF committees, responsible for monitoring the implementation of the "Eleven Steps" and the fulfillment of national norms.
11. Display the norms in health units so that they are easily visible.

**Commodities.** Two hundred communities will be selected to receive a distribution of educational materials on BF that have been compiled by the MOH from various sources.

## **CONTROL OF DIARRHEAL DISEASES (10%) Result: Improved quality of healthcare for children with diarrhea**

**Rationale.** Rates of childhood diarrhea in Jinotega were the highest in the country—20% compared to the national rate of 13% (DHS, 2001). According to Project HOPE's Baseline KPC Survey (2003), 39% of children 0-23 months had an episode of diarrhea within the two weeks prior to the survey. The DHS revealed that only 12% of households in Nicaragua have access to potable water, and 50% of rural latrines lack ventilation.

**Household behaviors and care-seeking practices.** According to Project HOPE's Baseline KPC Survey (2003) in Jinotega, only 27% of mothers are able to identify two or more danger signs of dehydration. Only one-third (35%) of mothers with children less than 2 years with diarrhea within the last two weeks sought assistance or counseling from a health unit or CORU. About the same (34%) proportion of mothers reported that their children were given Oral Rehydration Therapy (ORT). These data compare to DHS estimates for Jinotega: 40% of children that had diarrhea in the last two weeks were taken to a health facility, and 53% were given ORS (DHS

2001). According to DHS (2001), 67% of mothers in Jinotega (same as the national rates) gave more liquids during a diarrheal episode. Only 19% of mothers report washing their hands with water and soap before the preparation of meals, before feeding their children, after defecation, and after tending a child that has defecated (HOPE Baseline KPC Survey).

***Main Strategies for Behavior Change and Quality Assurance.*** IEC at the household level will be focused on teaching mothers about the danger signs of dehydration. The project will print over 2,500 copies of the Mothers' Reminder Materials that were developed and field tested by Project HOPE (before the start of the current CS program) in Jinotega. These hanging wall calendar/ mirror/ messages with pictures will be distributed to pregnant women and women with children under two years. The focus of project's in controlling diarrhea among young children will be to improve case management of diarrheal episodes—especially at the community level—using the AIN/AIEPI approach. Whenever a child makes contact with the health system, whether through growth monitoring sessions, during immunization campaigns, etc., mothers will be asked if their child has diarrhea and will be treated according to the AIN/AIEPI (IMCI) protocols and guidelines. At the community level, brigadistas will use the AIN/AIEPI guidelines (consisting of five modules), an existing and validated flowchart/procedure chart and a photographic album to assist with proper classification and referral of cases. Community health volunteers (CHVs) will also emphasize teaching mothers when it is important to wash their hands: before the preparation of meals, before feeding their children, after defecation, and after tending a child that has defecated.

Main activities planned include:

- Operations research designed to analyze the utilization of casa bases (CORUs) where a brigadistas manage young children with diarrheal episodes and offer ORS/ORT, counseling, and referrals.
- Diagnosis and treatment guidelines will be included in all training and supervision to ensure compliance with government AIN/AIEPI norms.
- Distance-learning modules (audiotapes, text/flash cards, and messages that can be sent through the radio system) on case management of diarrhea, including proper referral protocols, will be pilot-tested. The modules will be developed based upon some existing materials for AIN/AIEPI that will be adapted with the SILAIS. Some technical assistance will be provided by the Autonomous University of Nicaragua, which has developed self-instruction distance learning courses using adult learning methodologies.
- Links, whenever and wherever possible, will be made with agencies working on water and sanitation programs in Jinotega.

***Commodities.*** The supply of oral rehydration salts (ORS) and consumables to facilities and *casas base* (CORUs) are addressed by training planned for the MOH in the management of ORS/ORT supplies and antibiotics. Project HOPE/Nicaragua will attempt to obtain the appropriate antibiotics to treat the most common diarrheal diseases through its Humanitarian Assistance Program.

***Coordination with other activities:*** Breastfeeding promotion has an impact on the reduction of diarrhea well beyond the time when breastfeeding should be exclusive, thus education sessions will emphasize this benefit. Vitamin A is associated with a reduction in the mortality and morbidity from diarrheal episodes, thus campaigns and routine services will attempt to reduce

the missed opportunities for Vitamin A supplementation, particularly in the case of malnourished children and children with chronic diarrhea.

### **PNEUMONIA CASE MANAGEMENT (10%) – Improve the identification and management of pneumonia/acute respiratory illness**

**Rationale.** According to the MOH HIS (2001), the specific mortality rate for pneumonia in children < 5 years was 19/10,000. SILAIS Jinotega reported a total of 66,476 cases in 2002 of acute respiratory illness among children under 5 years, but this figure can not be broken down to detect actual cases of pneumonia. Project HOPE's Baseline Survey (2003) revealed that about one-third (32%) of children < 2 years had pneumonia within the previous two weeks and over half experienced an episode of acute respiratory illness (ARI). According DHS (2001), the morbidity for IRAs in children under 5 year in Jinotega is 35% and Nicaragua is 31%. This is compounded by the fact that in places like Jinotega medicines have been sent to facilities with no trained personnel to prescribe them.

**Household behaviors and care-seeking practices.** According to Project HOPE's recent Baseline KPC Survey (2003), approximately 67% of mothers were able to name two or more of the danger signs of pneumonia. Of those children who experienced cough and difficulty breathing, 58% sought help from a health facility or *casa base* (community-based provider). In Jinotega, there are 305 *casas base* and nearly 1,000 brigadistas trained in IMCI and able to classify cases of pneumonia—providing an excellent starting point for addressing this issue. The abuse of antibiotics is being addressed by early identification and the appropriate management of ARIs at the community level through the use of C-IMCI (AIN-C in Nicaragua) protocols.

**Main Strategies for Behavior Change and Quality Assurance.** Three main strategies will be used to improve management of pneumonia/ARIs in both the health facilities and to increase health-seeking behavior among mothers whose children show signs of pneumonia/ARIs: 1) IEC, 2) Clinical (facility-based) AIN-AIEPI, and 2) Community-based AIN/AIEPI (AIN-C/AIEPI-C). IEC/BCC messages will promote the early recognition of danger signs of pneumonia/ARIs by mothers and promote early visits to the nearest health facility for classification and appropriate treatment. Mothers will be encouraged not to obtain or purchase antibiotics unless a trained health provider has directed her to do so. Health care providers will be trained in AIN/AIEPI (IMCI) norms and protocols.

Project HOPE will undertake the following activities:

- Provide on-the-job training and supervision of facility and community health providers to ensure compliance with both Clinical and Community IMCI (AIN/AIEPI) norms.
- Include identification and referral protocols in training and supervision for clinic and community-based volunteers in areas where access to clinical services is difficult.
- Strengthen referral networks for emergency cases through training health facility staff and community volunteers, featuring the quality improvement tools suggested in the *Guide for Monitoring and Supervision for the First Level of Care* developed by the MOH.
- Pilot distance-learning modules (audiotapes, text, and messages that can be sent through the radio system) on identifying pneumonia signs and case management, including making proper referrals. Our main partner in piloting the distance learning modules will be UNAN (Autonomous University of Nicaragua).

- Provide TA to the MOH in logistics management.
- Improve epidemiological surveillance of ARIs.
- Increase the number of sources for IEC messages, such as radio spots and health fairs (the exact mix and level of effort will be elaborated during the development of the project's Plan for Training and IEC).
- Reactivate CURIM (Committee for Rational Use of Medical Supplies) and conduct workshops for community-based private providers and health facilities to educate them about the rational use of antibiotics and to explore what other appropriate medications they can use to treat clients under various scenarios (for example, the common cold).

### *Improving Quality: Standard Treatment Guidelines/Protocols*

Until 2001, the MOH used international case management norms for ARIs. Then, the MOH decided to adopt the international IMCI guidelines for assessment, treatment, counseling, and follow-up and has begun to implement them in eight departments of Nicaragua. During the implementation of IMCI (AIN-AIEPI in Nicaragua), BASICS conducted OR and determined that providers who did not classify correctly were also more likely to give the wrong treatment and not to follow-up their clients. In light of this conclusion, the project plans to conduct health facility worker and brigadista performance assessments and to develop organized approaches with its partners to diminish gaps and weaknesses in performance. The project also plans to provide training for MOH staff facilitators in quality assurance (QA). The exact processes for improving performance will be determined during the design of the course for providers aimed to introduce concepts and tools for ensuring quality performance. The MOH has already developed a revised version of 'Totally Functional Health Units' (the *Guide for Monitoring and Supervision for the First Level of Care*). The new version of the *Guide* lists available recommended tools to measure performance. Wherever there are gaps, the project will work directly with the MOH to develop or identify tools to measure performance. At the community level, community volunteers will also receive training in making appropriate referrals and counter-referrals, using tools and processes developed by the MOH.

**Commodities.** Project HOPE will work with the MOH to improve the management of its supplies and resources, including antibiotics. Through its Humanitarian Assistance Program, HOPE will try to procure to the furthest extent possible, useful antibiotics for use in its Child Survival program.

## **IMMUNIZATION (7%) Result: Improved immunization coverage for children under 2 years of age**

**Rationale.** According to the DHS (2001), only 70% of children 12 to 23 months of age in Jinotega had received all recommended vaccines. Project HOPE's recent baseline KPC survey (2003) provides the same estimate (70%). Only 73% of mothers in Nicaragua possess an immunization card compared to 83% in Jinotega (DHS 2001). HOPE's Baseline KPC Survey (2003) found that 95% of mothers were in possession of an immunization card. In rural areas of Nicaragua, such as Jinotega, the level of completed immunizations on average is about 8 percentage points lower compared to more urban areas. This may be due, in part, to the lack of refrigerators in the health posts.

**Household behaviors and care-seeking practices.** According to the DHS (2001), the education level of mothers is positively associated with child immunization. Mothers without education had children with lower immunization coverage (65%) when compared to mothers with college degrees (75%). Children living in rural areas have complete immunization schedules: 65% in comparison to 74% in urban areas.

**Main Strategies for Behavior Change and Quality Assurance.** Project HOPE's main role will be to provide technical and logistical assistance to the MOH to increase the immunization coverage of children < 2 years. The project will work at the facility level (health posts and centers) to strengthen the skills of health staff in applying correctly the AIN/AIEPI protocols for child immunization. Project HOPE will also work with the SILAIS (Department Level) to strengthen the management of the vaccine supply and fortify the cold chain throughout the SILAIS. Project HOPE will work directly with MOH trainers as they train groups of brigadistas, TBAs, and other community volunteers to strengthen their educational and motivational skills. HOPE will also work to strengthen the referral and counter-referral system between the community and the nearest health center that provide vaccinations. Project HOPE will provide support to the MOH during National Days of Health (immunization campaign days) when young children are vaccinated. The project will facilitate improvements in the HIS (part of a larger effort to improve and streamline the HIS of the SILAIS), and planning at SILAIS and municipality levels. An improved HIS will provide more timely feedback to the community on their immunization efforts. The information will be used to make local decisions relating to follow-up and referrals. Lastly, emphasis will be placed on diminishing the 'lost opportunities' to vaccinate children. The project will use the IMCI approach, which guides health staff to check for immunization coverage. Among all the communities in Jinotega, the project will focus efforts in 80 priority communities (the exact ones are still being negotiated with the SILAIS) to boost the overall coverage rates for the Department.

**Commodities.** Project HOPE will also work with the SILAIS (Department Level) to strengthen the management of the vaccine supply and fortify the cold chain throughout the SILAIS.

## **CHILD SPACING (10%) Result: Increased birth intervals in mothers with children aged 0 to 23 months old**

**Rationale.** The total fertility rate (TFR) in the target area is very high: 5.3 in Jinotega (DHS 2001). This compares to 4.4 in rural Nicaragua and 3.2 in all of Nicaragua (DHS 2001). Over

the past two years, the supply of injections, pills, IUDs, and condoms in Jinotega has improved, although there are still areas where access to FP methods is poor, primarily due to how the population is dispersed through large areas with no or poor road access. Also affecting access to FP services is the high absentee rate among health facility staff. Lastly, there are many barriers to the use of FP for many couples in Jinotega, primarily the negative attitude of the Catholic Church toward contraception, and the ‘machismo’ culture that discourages women to be the decision makers in matters such as the use of family planning. According to the most recent DHS, 10% of women in Nicaragua stated that they do not use FP because their partner disallows it.

***Household behaviors and care-seeking practices.*** Two-thirds (66%) of women in union in Nicaragua use a modern method of FP (DHS 2001). Jinotega reports the second lowest use of FP in Nicaragua—only 52% of women in union use a modern method (55% overall) (DHS 2001). Of those women use a FP method, 35% use injections, 24% are sterilized, 20% use pills, and 6% use LAM (DHS 2001). Project HOPE’s Baseline KPC Survey (2003) provides a higher estimate of FP use: 65% of women reported that they are using a modern method. Knowledge of FP is almost universal (99%). Among those women who use FP in Jinotega, the most population methods are injections and pills (both around 31%), followed by sterilization (14%) (Project HOPE Baseline KPC 2003). IUDs and NFP both have around 3% of the total proportion of users. The MOH statistics provide varying estimates of FP use, in part due to a lack of a working registration and tracking system for new and continuing users.

***Main Strategies for Behavior Change and Quality Assurance.*** The project’s focus for optimal child spacing will be on 1) improving access to FP in remote areas, and 2) providing quality services, including improving provider performance in registering, screening, counseling, and tracking clients. One of the key strategies will be the piloting of Community-based Distribution Agents (CBDAs) in areas where there is poor access. The project will collaborate with PROFAMILIA, one of Nicaragua’s premier FP organizations that provide quality FP services. Although PROFAMILIA has trained and supervises CBDAs in other parts of Nicaragua, its catchment area in Jinotega is limited to the city of Jinotega and the immediate surrounding area. Following PROFAMILIA’s model and using their training and teaching materials, the project will pilot the use of CBDAs in Jinotega’s remote areas. Training will be given to the health facility staff in the nearest health posts to supervise the CBDAs in their catchment area. The “project” CBDAs and their supervisors will be specially trained in FP counseling (eligibility criteria, advantages and disadvantages, side effects, and appropriate referrals) and distribution and management (tracking supply and replenishment, documenting, CYPs, etc.). In all, the project will eventually establish 80 distribution points, phased in gradually over the project; of these, 20 will be piloted in the first 2 years of the project. In addition to the materials provided by PROFAMILIA, some existing materials that the MOH has developed with PROSALUD will be used.

The project will train 110 facility-based providers in the Integrated Care of the Woman (Atención Integral de la Mujer or AIM in Spanish). Four hundred CHVs will also be trained in providing information about FP and making referrals to the nearest health facility or point of distribution. The trainers will be the 54 MOH facilitators whose training will be coordinated by Project HOPE in collaboration with the SILAIS. Among various topics, the training will incorporate systems to register clients for RH services, including FP use.

The quality of services for FP will be improved through the application of the approaches and tools outlined in the newly released *Guide for Monitoring and Supervision for the First Level of Care* developed by the MOH. The Guide, described earlier in this document, is the project's main instrument that will be used to assess the functioning of health facilities and assess health worker performance. The *Guide* is dynamic: new validated tools will be added where they are gaps in what the Guide includes now, or if better tools and checklists are developed in the future. The project will use existing tools wherever possible, however, the project has reviewed EngenderHealth's COPE tools and materials that are related to maternal and reproductive health services, and believes that some of the tools can be adapted and would be 'value-added' to the MOH's toolkit.

Assessments will also be periodically carried out using techniques including exit interviews and verbal case reviews. The numbers of new acceptors will be monitored as well as the number of referrals, and the reasons for the referrals. The project will also track the CYPs being distributed by the new CBDAs.

Another key strategy for improving quality service will be the establishment of Municipal Quality Committees, whose primary task will be to monitor the quality of the health services provided in their jurisdiction. These municipality-level committees will include representatives from the health centers and posts and will be linked to related Committees formed at the Department (SILAIS) level. These Committees will meet each month and monitor service statistics, review maternal deaths reported, and discuss current issues and problems that need to be resolved that related to maternal health.

**Commodities.** The project will work closely with the SILAIS to improve the tracking of contraceptive supply to ensure the timely and consistent supply of resources. The project plans to train all health facility staff in logistics management. The project will also seek to improve the registration and tracking of FP clients, so that supplies can be more accurately titrated to the demand.

### **HIV/AIDS (5%) Increased awareness of how to avoid getting HIV/AIDS**

**Rationale.** HIV/AIDS is a growing concern in Nicaragua, which is the only country in Central America where HIV/AIDS prevalence rates have increased by more than 100% per year since the mid-1990s. In Nicaragua, 93% of WRA had heard of HIV/AIDS, compared to 81% in Jinotega, where existing health facilities are ill-equipped to provide counseling and services for STIs, including HIV/AIDS. Fifty-nine percent of those interviewed in Jinotega thought that a healthy looking person could have HIV/AIDS, compared to 75% in Nicaragua (DHS 2001). While 70% of health facilities in Jinotega offer prevention education, only half offer treatment for STIs using the syndromic approach, the approach being used by the MOH in Jinotega (Measure 2000). Only 4% of facilities in Jinotega offer testing for HIV (Measure 2000). The MOH has adopted the syndromic approach to treating STIs due to the widespread lack of resources to confirm diagnoses based upon laboratory testing. Protocols with accompanying flowcharts have been standardized for the following syndromes: vaginal discharge, genital ulcer syndrome, lower abdominal pain (PID), and urethral discharge. Doctors, nurses, auxiliary nurses are all allowed to provide antibiotics, as well as the promoters in the health units.

***Household behaviors and care-seeking practices.*** Among WRA in Jinotega who had heard of HIV/AIDS and indicated that one could avoid getting infected, less than half (46%) mentioned that using condom as a means to avoid HIV/AIDS, and 61% mentioned that having only one partner could decrease the chances of getting HIV/AIDS. Of those who have heard about HIV/AIDS, the majority of women (85%) consider themselves at no or at low risk for getting the virus. Only 4% of women reported that their partners had used a condom at last intercourse, and half had used them for FP purposes. According to the most recent DHS in Nicaragua, of the 79% of women in Jinotega who mentioned that HIV/AIDS could be avoided, less than half (42%) of those mentioned two or more ways to avoid becoming infected and 25% mentioned one form. According to Project HOPE's Baseline KPC Survey, slightly more than half (59%) mentioned that a person could do something to avoid HIV/AIDS, but only 6% could state at least two ways to avoid infection.

***Strategy.*** Although HIV/AIDS/STIs will not be a major focus of the proposed project, every effort will be made to integrate HIV/AIDS prevention education into health staff training at all levels. At the health facility level, the main strategy will be prevention counseling and will be packaged as part of the Integrated Care of the Woman (Atención Integral de la Mujer)—the MOH's approach to service delivery for women's health. Within this program the main strategy to educate the population about HIV/AIDS consists of reinforcing the key message that a person can avoid getting HIV/AIDS through the use of condoms, abstinence, and reducing the number of sexual partners. Prevention education will also be the strategy that the project will use in the community.

#### **E. 4. Workplan**

The project's 1) summary indicators and monitoring table and 2) detailed workplan for the first two years are presented in this section. After the first two years of the project, annual workplans will be included in the Annual Reports submitted to USAID by October 31 of each year.

The workplan includes the following elements:

- The results-based objectives for selected child survival interventions;
- Indicators used to measure program objectives and method(s) of measurement;
- Major activities planned during the first two years of the project by level (SILAIS, municipality, community/household);
- Specific time frames for the implementation of major activities;
- Responsible personnel identified from PVO and partners; and,
- Benchmarks/targets for activities including any tools and/or existing resources to be used to monitor progress towards objectives and targets

**Table E.4.1 Summary Indicators and Monitoring Table: Results (Key) and Process Indicators by Intervention and Targets by Year of Project for Key Indicators**

A. RESULT INDICATORS			
KEY (RESULTS) INDICATOR	Source	Tool	Frequency
INTERVENTION: Maternal and Neonatal Care (30%)			
1. % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.	KPC Survey	KPC questionnaire with LQAS methodology	Monitoring: Annual LQAS in selected municipalities Evaluation: MT, and Final KPC Survey
2. % of children aged 0-23 months old whose birth was attended by a doctor or nurse.			
3. % of mothers who report having had at least one postpartum visit.			
INTERVENTION: Nutrition / Micronutrients (13%)			
4. % of children aged 0-23 months, weighed in the last four months according to growth monitoring card.	KPC Survey	KPC questionnaire with LQAS methodology	Monitoring: Annual LQAS in selected municipalities Evaluation: MT, and Final KPC Survey
5. % of children aged 0-23 months old with satisfactory growth according to weight for age (<2Z)			
6. % of children aged 0-23 months old with no anemia. Hb > 11 mg/dl			
INTERVENTION: Breastfeeding (10%)			
7. % of children aged 0- 23 months old who were breastfed within the first hour after birth	KPC Survey	KPC questionnaire with LQAS methodology	Monitoring: Annual LQAS in selected municipalities Evaluation: MT, and Final KPC Survey
8. % of infants aged 0-5 months who received only breast milk in the past 24 hours			
INTERVENTION: Immunizations (7%)			
9. % of children 12-23 months fully immunized (BCG, OPV3, Pentavalente 3, and MMR) by 12 months	KPC Survey	KPC questionnaire with LQAS methodology	Evaluation: MT, and Final KPC Survey
INTERVENTION: Control of Diarrheal Disease (15%)			
10. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child	KPC Survey	KPC questionnaire with LQAS methodology	Monitoring: Annual LQAS in selected municipalities (SAs) Evaluation: MT, and Final KPC Survey
11. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child			
12. % of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child’s last diarrheas episode.			
13. % of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated			
14. % of mothers of who can identify at least two danger signs for diarrhea			
INTERVENTION: Pneumonia Case Management (10%)			
15. % of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit	KPC Survey	KPC questionnaire with LQAS methodology	Monitoring: Annual LQAS in selected municipalities (SAs) Evaluation: MT, and Final KPC Survey
16. % of mothers who identify fast breathing as a danger sign of pneumonia			

<b>INTERVENTION: Child Spacing (10%)</b>			
17. % of children aged 12 to 23 months old that were born at least 24 months after previous surviving child	KPC Survey	KPC questionnaire with LQAS methodology	Monitoring: Annual LQAS in selected municipalities (SAs) Evaluation: MT, and Final KPC Survey
18. % of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method			
<b>INTERVENTION: HIV / AIDS / STIs: (5%)</b>			
19. % of mothers of children aged 0-23 months who know at least two ways to prevent HIV / AIDS / STIs	KPC Survey	KPC questionnaire with LQAS methodology	Monitoring: Annual LQAS in selected SAs / Evaluation: MT, and Final KPC.
<b>B. PROCESS INDICATORS</b>			
<b>PROCESS INDICATORS</b>	<b>Source</b>	<b>Tool</b>	<b>Frequency</b>
<b>INTERVENTION: Maternal and neonatal care (30%)</b>			
1. % of HUs that have implemented at least one quality activity (performance improvement and documented changes regarding management practices).	MOH	USTF / Check List	M: Every six months, using LQAS in selected municipalities  E: BL, MT and Final KPC Surveys
2. % of health care providers using protocols based on evidence and work tools in order to provide prenatal, delivery and postpartum care, and manage obstetric emergencies	MOH	USTF / Check List	
3. % of HUs that have a written delivery plan for pregnant women, developed in coordination with the communities (selected 53 HUs)	MOH	USTF / Check List	
4. % of communities with emergency transport plan for pregnant women during obstetric emergencies. (80 selected communities).	Informed Community	Monthly Report	
5. % of mothers who know danger signs during pregnancy, delivery and postpartum	Mothers	Interview with Exit Survey	
6. % CHVs (400) trained on referral and counter-referral carrying out effective referrals.	MOH	Quarterly Report	
7. % of mothers of children aged 0-23 months that received two doses of the dT vaccine during the last pregnancy, according to health card	Annex to KPC survey	KPC questionnaire with LQAS methodology	Monitoring: Annual LQAS in selected municipalities Evaluation: MT, and Final KPC Surveys
<b>INTERVENTION: Nutrition / Micronutrients (13%)</b>			
8. % of target communities with monthly AIN-C sessions	MOH HOPE	Monthly and Quarterly Report	M: Every six months
9. % of children 6-23 months who received Vitamin- A and iron in the past 6 months, confirmed by growth monitoring card	MOH HOPE	Monthly and Quarterly Report	
10. % of health facility staff who correctly classify the nutritional status of children <5 years old and provide appropriate counseling according to AIN-C/AIEPI norms and protocols	MOH /	Observation / Check List /	
<b>INTERVENTION: Breastfeeding (10%)</b>			
11. % of mothers with children aged 0-23 months who received information regarding LAM during their pregnancy and postpartum visit	KPC survey	KPC questionnaire with LQAS methodology	M: Every six months
12. % of mothers with infants 0-5 months who report using LAM			

<b>INTERVENTION: Immunizations (7%)</b>					
13. EPI desertion rate, for children aged 12-23 months old (BCG, OPV3, Pentavalente 3, and MMR)	MOH	EPI Quarterly Report	M: Every six months		
14. % of mothers possessing immunization cards for children aged 12-23 months old	Madres	Report / Mother's Interview			
<b>INTERVENTION: Control of Diarrheal Disease (15%)</b>					
15. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report having received ORS from a CHVs during their child's last diarrhea episode	CHVs MOH	Monthly and Quarterly Report, Referral record	M: Every six months		
16. % CHVs reporting monthly the management of children with diarrhea according to the AIEPI/C protocol	CHVs MOH	Monthly and Quarterly Report, Referral record			
17. % of mothers of children with diarrhea who report being satisfied with the service received from the CHVs	Mothers	Mother's interview / satisfaction survey			
<b>INTERVENTION: Pneumonia Case Management (10%)</b>					
18. % of mothers of children with ARIs who report being satisfied with the service received by HU staff.	Mothers	Mother's interview / satisfaction survey	M: Every six months		
19. % of CHVs reporting monthly the management of children with ARIs, according to AIEPI-C.	CHVs Reports	Monthly and Quarterly Report, / Case registry			
20. % of children less than 2 years old with ARIs treated with antibiotics	MOH	Quarterly Report			
<b>INTERVENTION: Child Spacing (10%)</b>					
21. Number of community health workers (CBDAs) distributing modern family planning methods within the pilot project's communities	CBDAS Reports	Monthly and Quarterly Report / Register of CBDAs implemented	M: Every six months		
22. % of trained health facility staff demonstrating 'effective' counseling techniques during FP consultations	MOH	Observations with check list / performance evaluation			
<b>INTERVENTION: HIV / AIDS / STIs (5%)</b>					
23. % of HUs offering education and counseling on ways to prevent HIV / AIDS / STIs	MOH	Observations with check list / activities plans	M: Every six months		
<b>C. TARGET GOALS FOR KEY INDICATORS 2003-2007</b>					
<b>KEY INDICATORS</b>	<b>Actual</b>	<b>Target by Year of Project</b>			
	<b>2003 Baseline</b>	<b>2004</b>	<b>2005 Midterm</b>	<b>2006</b>	<b>2007 Final</b>
1. % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.	89%	+2*	92%	+3*	95%
2. % of children aged 0-23 months old whose birth was attended by a doctor or nurse.	51%	+3	56%	+2	60%
3. % of mothers who report having had at least one postpartum visit.	32%	+3	38%	+4	45%
4. % of children aged 0-23 months, weighed in the last four months according to growth monitoring card.	68%	+7	82%	+6	91%

5.	% of children aged 0-23 months old with satisfactory growth according to weight for age (<2Z)	92%	=	92%	=	92%
6.	% of children aged 0-23 months old with out anemia. Hb > 11 mg/dl	58%	+3	64%	+4	70%
7.	% of children aged 0- 23 months old who were breastfed within the first hour after birth	68%	+2	71%	+2	75%
8.	% of infants aged 0-5 months who received only breast milk in the past 24 hours	56%	+4	63%	+4	70%
9.	% of children 12-23 months fully immunized (BCG, OPV3, Pentavalente 3, and MMR) by 12 months	69%	+3	74%	+4	80%
10.	% of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child	46%	+2	50%	+3	55%
11.	% of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child	69%	+3	75%	+3	80%
12.	% of mothers of children aged 0-23 months who report having sought assistance or counseling from a health unit or CORU during the child's last diarrheas episode.	36%	+4	43%	+4	50%
13.	% of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated	19%	+4	27%	+5	35%
14.	% of mothers of who can identify at least two danger signs for diarrhea	27%	+2	31%	+2	35%
15.	% of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit	60%	+8	76%	+5	85%
16.	% of mothers who identify fast breathing as a danger sign of pneumonia	76%	+3	81%	+2	85%
17.	% of children aged 12 to 23 months old that were born at least 24 months after previous surviving child	84%	+2	87%	+2	90%
18.	% of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method	65%	+1	67%	+2	70%
19.	% of mothers of children aged 0-23 months who know at least two ways to prevent HIV / AIDS / STIs	6%	+2	10%	+3	15%

\* Indicates estimated level and direction of change in percent

**TABLE E.4.2. PROJECT WORKPLAN 2002-2004**

**PROGRAM'S GOAL: TO IMPROVE THE HEALTH OF WOMEN OF REPRODUCTIVE AGE AND CHILDREN YOUNGER THAN 5 YEARS OLD IN JINOTEGA'S RURAL AREAS**

**INTERVENTION: MATERNAL AND NEONATAL CARE: 30%**

<b>Desired Result:</b> Improve the quality of maternal and neonatal care services of the SILAIS Jinotega's health units (HUs)			
<b>Intermediate Results (Outcome):</b> <ol style="list-style-type: none"> <li>1. Improve the institutional quality for prenatal, delivery and postpartum care.</li> <li>2. Improve the mother's nutritional practices during pregnancy and breastfeeding.</li> <li>3. Strengthen the capacity of healthcare providers to manage neonatal and obstetric emergencies.</li> <li>4. Increase the knowledge of mothers and family members regarding maternal health (basic messages about danger signs during pregnancy, delivery and postpartum).</li> <li>5. Increase the capacity of CHVs at the community level, in order to provide education and quality counseling regarding maternal and reproductive health.</li> <li>6. Strengthen the referral and counter-referral system for maternal health at institutional and community levels.</li> </ol>			
Results Indicators:	Targets		Measurement Method(s) M: Monitoring; E: Evaluation
	Baseline	Final	
1. % of mothers of children aged 0-23 months who report having had at least one prenatal visit with a doctor or nurse.	89%	95%	M: Annual LQAS in selected municipalities
2. % of children aged 0-23 months old whose birth was attended by a doctor or nurse.	51%	60%	E: BL, MT, and Final KPC Survey
3. % of mothers who report having had at least one postpartum visit.	32%	45%	
Process Indicators:			
1. % of HUs that have implemented at least one quality activity (performance improvement and documented changes regarding management practices).	N/A	80%	M: Every six months, using LQAS in selected municipalities
2. % of health care providers using protocols based on evidence and work tools in order to provide prenatal, delivery and postpartum care, and manage obstetric emergencies.	N/A	80%	
3. % of HUs that have a written delivery plan for pregnant women, developed in coordination with the communities (selected 53 HUs)	N/A	100%	E: BL, MT and Final KPC Survey
4. % of communities with emergency transport plan for pregnant women during obstetric emergencies. (80 selected communities).	N/A	80%	
5. % of mothers who know danger signs during pregnancy, delivery and postpartum	N/A	80%	
6. % CHVs (400) trained on referral and counter-referral carrying out effective referrals.	68%	75%	
7. % of mothers of children aged 0-23 months that received two doses of the dT vaccine during the last pregnancy, according to health card.	N/A	80%	← may be difficult to discern

Maternal and Newborn Care (continued)											
Major Activities	Year 1				Year 2				Personnel Responsible	Output/Outcome of Activity Desired	
	1	2	3	4	1	2	3	4			
SILAIS (Jinotega) Level (Coordination with Stakeholders (SILAIS/MOH, other Public Sectors, Private Sector, local NGOs, community groups))											
Monitoring and follow up quarterly of the AIM (Intergraded Services to Women) program at HUs through implementation of MOH's work tools (Check lists, decision tree) to support the design of a continuous plan for services' quality assurance			X	X	X	X	X	X	Municipal Direction teams Project HOPE Staff	8 municipalities using AIM guides and tools. Monitoring Reports. Quality assurance plan.	
Assessment of training needs on subjects regarding maternal and newborn care, according to MOH's curricula for healthcare providers on maternal health, delivery and newborn care, and obstetric and neonatal emergencies.			X	X					SILAIS Quality Team Project HOPE Staff	Needs report for 53 health facility staff (8 doctors, 40 nurses, and 5 others) from 8 health centers and 45 health posts	
Assist the SILAIS partners in the training of municipal facilitators for educational activities at the local level and facilitating updates during training-oriented supervisions to AIM health personnel.				X	X	X	X	X	Project HOPE Specialist MOHs Quality Team	AIM medical personnel updated during training-oriented supervisions	
Implement focal groups type operations research to assess mothers' perception regarding the quality of institutional delivery.			X	X	X				SILAIS staff Project HOPE staff	Operations research reports indicate mothers satisfaction with quality of institutional delivery care.	
Assist the in the evaluation and improvement of service provision flow at HUs that provide delivery services.				X	X	X	X	X	SILAIS/Municipal staff Project HOPE staff	80% of H/Us providing deliveries with improved service flow.	
Develop the capacity of municipalities to design and manage maternal homes projects that improve pregnant women's access to HUs.				X	X	X	X	X	Project HOPE staff Municipalities MOH/SILAIS	Municipal committees designing and managing maternal homes projects.	
Municipality Level (MOH, Public and Private Facilities, local NGOs, and community groups)											
Train healthcare providers on key issues regarding maternal and neonatal care, through continuous education plans and the methodology for training-oriented supervision (110 AIM providers).				X	X	X	X		Municipal facilitators Project HOPE Staff	110 healthcare providers trained on maternal and newborn care key issues (30 doctors, 80 nurses)	
Develop health providers skills to promote IEC activities at the HU and community through training events using adult learning methodologies and negotiation based counseling (110 AIM providers)				X	X	X			Municipal facilitators Project HOPE Staff	Municipal education plans using adult learning methodology and counseling (30doctors, 80 nurses)	
Promote Maternal Mortality (MM) analysis each quarter using a case study approach and the identification of the 4 delays (8 municipalities)				X	X	X	X	X	Municipal Quality Committee Project HOPE Staff	8 municipalities carrying out the analysis of MM cases and the 4 delays identification	
Train healthcare providers on obstetric and neonatal emergencies, quality delivery care, and timely referral of high risk pregnancies (110 providers)					X	X			Municipal facilitators assisted by Project HOPE Staff	110 healthcare providers trained (30 doctors, 80 nurses)	
Develop and implement the strategy of the delivery plan at institutional and community levels.				X	X	X	X	X	Health Providers and CHVs	Pregnant women with documented delivery plan.	

<b>Maternal and Newborn Care (continued)</b>											
Assist partners in the identification of performance gaps and use QA/PI methodologies to select interventions to improve services provided at HUs and in the community.										SILAIS and Direction team Project HOPE team	Quality Improvement plan using QA/PI methodologies applied at the H/Us and in the community.
<b>Community/Household Level (Brigadistas, TBAs, other Community Volunteers)</b>											
Conduct periodic update sessions regarding maternal care issues, according to TBAs curricula and EON protocols, and TBAs correct referral of pregnant women (400 midwives)				X	X	X	X	X		HUs Personnel Project HOPE Educators	200 midwives receiving updating training on maternal care issues.
Train TBAs on adult training methodologies and participative techniques (400 midwives).					X		X			HUs Personnel Project HOPE Educators	50% of TBAs trained on adult training methodologies and participative techniques
Select appropriate key maternal health messages, to improve the knowledge of mothers and families in the project area through mothers' clubs and HUs.			X	X	X					MOH/SILAIS Project HOPE Staff	Mothers and families in the project area receiving key messages on maternal health.
Pilot the COPE community assessment, or similar tools to improve access and health service to the communities. (10 Selected communities)			X	X	X					HUs Personnel Project HOPE staff	Improved access and health services to the communities
Promotion of services offered by the health personnel at the HU.				X	X	X	X	X		HUs Personnel CHVs	Documented higher demand for services offered at the H/U.
Create fathers and mothers groups to facilitate training on gender subjects, family planning; danger signs during pregnancy, delivery and postpartum; key practices for healthy development (Bulletin No. 13,16 WHO, PAHO)				X	X	X	X	X		HUs Personnel Project HOPE Educators	80 communities with fathers and mothers groups promoting key messages.

## INTERVENTION: Nutrition / Micronutrients (13%)

<b>Desired Result:</b> Improved nutritional status of children less than 5 years old														
<b>Intermediate Results (Outcome):</b>														
Improved surveillance and identification of children less than 5 years old at risk of malnutrition and improved nutritional counseling for their mothers														
Increased community involvement in nutritional counseling and education														
<b>Results Indicators:</b>						Targets		<b>Measurement Method(s)</b> <b>M: Monitoring; E: Evaluation</b>						
						Baseline	Final							
4. % of mothers with children 0-23 months who were weighed in the past 4 months, card confirmed						91%	≥91%	M: LQAS in selected municipalities every four months  E: BL, MT, and Final KPC Survey						
5. % of children aged 0-23 months old with satisfactory growth according to weight for age (> 2 SD Z)						92%	≥92%							
6. % of children aged 0-23 months old with no anemia (Hb > 11 mg.dl)						58%	70%							
<b>Process Indicators:</b>														
8. % of target communities with monthly AIN-C sessions						N/A	90%	M: LQAS in selected municipalities every four months  E: BL, MT and Final KPC Survey M: AIN/AIEPI (monthly reports)  Supervisory checklists						
9. % of children 6-23 months who received Vitamin- A and iron in the past 6 months, confirmed by growth monitoring card						16%	80%							
10. % of health facility staff who correctly classify the nutritional status of children < 5 years old and provide appropriate counseling according to AIN-C/AIEPI norms and protocols						N/A	80%							
<b>A. MAJOR ACTIVITIES</b>					Year 1				Year 2				Responsible Personnel	Output/Outcome of Activity Desired
					1	2	3	4	1	2	3	4		
<i>SILAIS (Jinotega) Level (Coordination with Stakeholders (SILAIS/MOH, other Public Sectors, Private Sector, local NGOs, community groups))</i>														
Train all 54 SILAIS facilitators on continuous education methodologies, regarding clinical AIN/AIEPI in order to ensure correct cascade training to health facilities' personnel.							x	x					SILAIS staff, Project HOPE staff	54 Facilitators trained
Select the prioritized communities in coordination with municipalities and SILAIS.							x						SILAIS,' municipal direction teams. Project HOPE staff	80 communities selected for AIN/AIEPI implementation
Develop operational research in order to evaluate work tools (check- list, role play, performance evaluation, mystery clients, etc.)								x					SILAIS' quality teams, Project HOPE staff.	FFHU work tools for quality control adapted to local level.
<i>Municipality Level (MOH, Public and Private Facilities, local NGOs, and community groups)</i>														
Train health personnel on clinical AIN and key infant care subjects for children younger than 5 years old. According to AIN Program norms and protocols.							x						Project HOPE staff in collaboration with local MOH master trainer and health staff	80 nurses and 30 doctors trained on AIN norms and protocols.

Nutrition / Micronutrients <i>(continued)</i>											
Develop a continuous quality improvement plan regarding the AIN program at the municipality level.				x		x		x	SILAIS' quality teams. Project HOPE staff.	80% of selected HU implementing quarterly a quality improvement plan according to results from the municipality's quality assessments.	
Train the municipality's quality teams on use of the "Monitoring and Supervision for the First Level of Care Guide".				x					SILAIS staff. Project HOPE staff	100% of the municipality's quality teams trained and implementing the monitoring and evaluation guide	
Train health personnel of selected HUs on community AIN to ensure adherence to the AIN/AIEPI strategy.				x					Project HOPE staff in collaboration with local MOH master trainers and staff	100% of the communities implementing AIN-C having semi-monthly follow up by supervision health personnel.	
Community/Household Level <i>(Community Health Volunteers (CHV), TBAs, other community volunteers)</i>											
Implement community AIN in 80 communities prioritized by the SILAIS				x	x			x	x	SILAIS/HUs, with assistance from HOPE staff.	80 communities conduct monthly weighing sessions with assisted by SILAIS/HUs
Train 240 community Health volunteers on effective counseling techniques in order to improve the promotion and education at community level.				x					x	Project HOPE staff in collaboration with local MOH master trainers and HU staff	240 CHVs providing counseling on nutrition using effective techniques.
Promote meetings every two months between the HU personnel and network of CHVs.				x	x	x	x	x	x	HOPE Educators – H/U personnel.	80% of the selected H/U having meetings every two months with the CHVs' network within their service area.
Hold periodic meetings with breastfeeding support groups (one for each health unit).				x	x	x	x	x	x	Educators HOPE – H/U personnel	80% of the HU conducting routine breastfeeding support groups meetings.
Organize mothers' clubs and provide monthly follow up talks in the communities where AIN-C is implemented										Educators HOPE – H/U personnel	80 mothers' clubs receiving monthly talks regarding health issues including nutrition.

## INTERVENTION: Breastfeeding: 10%

<b>Desired Result:</b> Improve the practice of breastfeeding in children aged 0-23 months old													
<b>Intermediate Results (Outcome):</b> Increase the percentage of newborns breastfed within the first hour after birth Increase the percentage of children aged 0-5 months old that are exclusively breastfed													
<b>Results Indicators:</b>						Targets		<b>Measurement Method(s)</b> <b>M: Monitoring; E: Evaluation</b>					
						Baseline	Final						
7. % of children aged 0- 23 months old who were breastfed within the first hour after birth						68%	75%	M: Annual LOAS in selected municipalities E: BL, MT, and Final KPC Survey					
8. % of infants aged 0-5 months who received only breast milk in the past 24 hours (Exclusive Breastfeeding)						56%	70%						
<b>Process Indicators:</b>													
11. % of mothers with children aged 0-23 months who received information regarding LAM during their pregnancy and postpartum visit						12%	60%	M. Every six months in health units					
12. % of mothers with infants 0-5 months who report using LAM						3%	10%						
<b>B. MAJOR ACTIVITIES</b>													
					Year 1		Year 2		Personnel Responsible		Output/Outcome of Activity Desired		
1	2	3	4	1	2	3	4						
SILAIS (Jinotega) Level (Coordination with Stakeholders (SILAIS/MOH, other Public Sectors, Private Sector, local NGOs, community groups))													
Promote technical assistance in order to strengthen the mother-and- child-friendly health units, as a strategy to achieve breastfeeding and exclusive breastfeeding.							X	X	X	X	X	MOH/SILAIS Municipal staff, Project HOPE staff	Cooperation Plan and Management Protocols for Child- Friendly Health Units in 53 H/U.
Use of Quality Assurance/Performance Improvement (QA/PI) and operational research techniques in order to identify barriers in the use of exclusive breastfeeding during the first 6 months and choose interventions to be implemented in 80% of selected health units							X	X	X			MOH/SILAIS Health units staff Project HOPE staff	Reports on operative researchers and municipality work plan for the 53 H/Us.
Develop a work plan for promotion of BF, EBF and LAM, through key health messages, effective counseling and following the 11-steps of the National Norm for children aged 0-23 months old, in 80% of the selected H/U							X	X				Project HOPE staff in coordination with SILAIS master trainers and staff	Mothers with children aged 0-23 months old receiving health messages, documented by health personnel
Municipality Level (MOH, Public and Private Facilities, local NGOs, and community groups)													
Develop work tools for exclusive breastfeeding and printed materials with basic messages that promote breastfeeding, to support educational activities at the HU and Mothers' Clubs levels.							X	X	X	X		Project HOPE staff in coordination with SILAIS master trainers and staff	Work tools and printed materials for BF promotion
Training and updating of health personnel regarding exclusive breastfeeding, LAM, complementary feeding and mother-child affective communication.							X	X				Project HOPE staff in coordination with SILAIS master trainers and staff	Records of trained health providers and municipal training plans

Breastfeeding (continued)											
Strengthening the pregnant and breastfeeding mothers clubs by the H/Us, promoting breastfeeding as the best food for their child's nutrition and the consumption of locally available nutritional foods.			X	X	X	X	X	X	Municipal Staff, ACS, HOPE staff	80% of HUs with breastfeeding practice support groups, developing education plans.	
Community/Household Level (Brigadistas, TBAs, other Community Volunteers)											
Training and update CHVs (Brigadistas and TBAs) regarding breastfeeding practices and exclusive breastfeeding, complementary feeding and mother-child affective communication.			X	X	X				Health units facilitators Project HOPE staff	400 CHVs trained and carrying out breastfeeding promotion	
Promote the consumption of nutritional foods locally available practices through mothers and fathers' clubs, at the community level, directed by CHVs. (20 functional mothers and fathers per each club (1,600), in prioritized communities)				X	X	X	X		Silais , with assistance of Project HOPE staff	Clubs in 80% of priority target communities, (80 clubs X 20 mothers and fathers =1,600 members) promoting nutrition	
Promote the use of adequate nutritional practices by Mothers for their children's and their own selfcare (mothers breastfeeding within the first hour after delivery).					X	X	X	X	MOH, with assistance of Project HOPE staff	Mothers' breastfeeding within the first hour after delivery, using nutritional practices.	

## INTERVENTION: Immunizations (7%)

<b>Desired Result:</b> Improve immunization coverage for children under 2 years of age														
<b>Intermediate Results (Outcome):</b> Increase the number of children aged 12-23 months old with immunization card Decrease the dropout rate of children less than 5 years old from the immunization program														
<b>Results Indicators:</b>										Targets		<b>Measurement Method(s)</b> <b>M: Monitoring; E: Evaluation</b>		
										Baseline	Final			
9. % of children 12-23 months fully immunized (BCG, OPV3, Pentavalente 3, and MMR) by 12 months										70%	80%	M: LQAS in selected municipalities every four months  E: BL, MT, and Final KPC Survey		
<b>Process Indicators:</b>														
13. %EPI desertion rate, for children aged 12-23 months old (BCG, OPV3, Pentavalente 3, and MMR)										6%	≤6%	M: LQAS in selected municipalities every four months E: BL, MT, and Final KPC Survey		
14. % of mothers possessing immunization cards for children aged 12-23 months old										95%	≥95%			
<b>Major Activities</b>					Year 1		Year 2		<b>Personnel Responsible</b>		<b>Output/Outcome of Activity Desired</b>			
					1	2	3	4				1	2	3
<i>SILAIS (Jinotega) Level (Coordination with Stakeholders (SILAIS/MOH, other Public Sectors, Private Sector, local NGOs, community groups))</i>														
Train 110 healthcare providers on EPI immunization protocols for its application in AIN							x	x					Municipality Direction Teams HOPE Staff	80% H/Us applying EPI immunization protocols in AIN
Develop training plans to strengthen adequate management of the EPI's cold chain.								x					SILAIS Educator Municipality HOPE Staff	8 H/Us with a training plan for adequate management of cold chain.
Logistic and technical assistance during the National Health Campaigns (NHCs)								x		x		x	SILAIS Educator Municipality HOPE Staff	8 municipalities with logistic support and technical assistance during the NHCs.
<i>Municipality Level (MOH, Public and Private Facilities, local NGOs, and community groups)</i>														
Develop training plans to strength the management of the EPI's cold chain									x				SILAIS Educator Municipality HOPE Staff	80% of selected HUs managing the cold chain according to national EPI norms.
Assist health personnel for the organization and execution of fieldwork and the strengthening of systematic vaccination							x	x	x	x	x	X	SILAIS Educator Municipality HOPE Staff	80% of HUs conducting Integrated Visits to priority communities to immunize children less than 5 years old.

Immunization (continued)											
Community/Household Level (CHVs, TBAs, other Community Volunteers)											
Implement community AIN in 80 communities prioritized by the SILAIS			x	x			x	x	HUs, with assistance from HOPE staff	80 communities conducting monthly weighting session ← for immunization? with support of HUs	
Support the SILAIS in the strengthening of community information system updating of the EPI notebook and census.			x	x	x	x	x	x	HUs Personnel HOPE Educator	80 communities with updated EPI notebook and census for children 0 to 23 months.	
Provide monthly follow-up to the immunization schedule during the community AIN sessions in 80 communities with AIN.			x	x	x	x	x	x	HUs Personnel HOPE Educator	90% of children from 80 with adequate immunization schedule for their age in communities with AIN-C	

# INTERVENTION: Control of Diarrheal Disease: (15%)

<b>Desired Result:</b> Improve the quality of healthcare for children with diarrhea.																
<b>Intermediate Results (Outcome):</b> Improve practices of mothers regarding care for children less than 5 years old with diarrhea. Improve diarrhea case management in the community.																
<b>Results Indicators:</b>					Targets				<b>Measurement Method(s)</b> <b>M: Monitoring; E: Evaluation</b>							
					Baseline		Final									
10. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more food to their child					46%		55%		M: LOAS in selected municipalities every four months							
11. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report giving as much or more liquids or breast milk to their child					69%		80%									
12. % of mothers of children aged 0-23 months who sought assistance or counseling from a health unit or CORU during the children's last diarrheal episode					36%		50%		E: BL, MT, and Final KPC Survey							
13. % of mothers of children aged 0-23 months who report washing their hands with water and soap before the preparation of meals, before feeding children, after defecation and after tending a child that has defecated					19%		35%									
14. % of mothers who can identify at least two danger signs for diarrhea					27%		35%									
<b>Process Indicators:</b>																
15. % of mothers of children aged 0-23 months with a diarrheal episode in the last two weeks who report having received ORS from a CHVs during their child's last diarrhea episode					N/A		65%		M: M: LOAS in selected municipalities every four months							
16. % CHVs reporting monthly the management of children with diarrhea according to the AIEPI/C protocol.					N/A		80%									
17. % of mothers of children with diarrhea who report being satisfied with the service received from the CHVs					N/A		85%		E: BL, MT, and Final KPC Survey M: AIN/AIEPI (monthly reports), Supervisor checklists, User's Satisfaction Survey (Evaluation Guide)							
<i>Note: Data for indicators 15 and 16 will be provided by the initial assessment for AIN-C sessions and indicator 17 will come out of the users satisfaction survey (3rd Quarter 2003)</i>																
<b>Major Activities</b>					<b>Year 1</b>				<b>Year 2</b>				<b>Personnel Responsible</b>		<b>Output/Outcome of Activity Desired</b>	
					<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>				
SILAIS (Jinotega) Level (Coordination with Stakeholders (SILAIS/MOH, other Public Sectors, Private Sector, local NGOs, community groups))																
Develop and implement the distance learning modules on diarrhea management oriented to health personnel							X							Municipalities SILAIS Facilitators HOPE Staff	80 nurses and 30 doctors from the 8 municipalities trained using the distance learning modules on diarrhea management	

<b>Control of Diarrheal Diseases (continued)</b>										
To carry out user satisfaction surveys to mothers who attend AIN services			X						Municipality Quality Teams HOPE Staff	80% of H/Us have a quality improvement plan according to results of satisfaction surveys.
<b>Municipality Level (MOH, Public and Private Facilities, local NGOs, and community groups)</b>										
Train the HUs personnel on clinical AIEPI for the correct application of the diarrheal diseases management protocols.			X	X	X	X	X	X	Municipalities SILAIS Facilitators HOPE Staff	80 nurses and 30 doctors from the 8 municipalities trained
Conduct operations research on CORUs utilization, to identify success lessons in the prioritized municipalities			X						Municipality Direction Team HOPE Staff	The municipality of Bocay giving follow-up to CORUs, according to data from research regarding CORUs utilization
Provide training and training-oriented supervision to health personnel to ensure compliance with norms and protocols for diarrhea management.			X	X	X	X	X	X	Municipality Quality Team HOPE Staff	80 nurses and 30 doctors from the 8 municipalities trained and 80% of selected H/Us receiving feedback according to weaknesses found during quarterly supervisions
<b>Community/Household Level (CHVs, TBAs and other Community Volunteers)</b>										
Implement community AIN in 80 communities prioritized by the SILAIS			x	x			x	x	SILAIS, with assistance from HOPE staff	80 communities conducting monthly weighting sessions with the assistance of the HUs
Create and provide follow-up to mothers' clubs			X	C	X	X	X	X	HUs Personnel HOPE Educator.	80 communities prioritized by HUs with functional mothers' clubs
Train CHVs on community AIEPI for the correct management and referral of complicated diarrhea cases.			X	X	X	X	X	X	HUs Personnel HOPE Educator.	240 CHVs trained on diarrhea management and adequate case referral
Provide training and training-oriented supervision to CHVs to ensure compliance with norms and protocols for diarrhea management.			X	X	X	X	X	X	HUs Personnel HOPE Educator.	240 CHVs trained and with HUs' training-oriented supervision
Train 240 CHVs on promotion, education, counseling and identification of diarrhea dangers signs at community level.			X	X	X	X	X	X	HUs Personnel HOPE Educator.	240 CHVs trained

## INTERVENTION: Pneumonia Case Management (10%)

<b>Desired Result:</b> Improve quality care for children with pneumonia																
<b>Intermediate Results (Outcome):</b> Improve mothers' healthcare seeking behaviors for ARIs Improve ARIs case management at HUs and in the community																
<b>Results Indicators:</b>					Targets				<b>Measurement Method(s)</b> <b>M: Monitoring; E: Evaluation</b>							
					Baseline		Final									
15. % of children aged 0-23 months with cough and fast breathing in the last two weeks taken to a health unit					60%		85%		M: LQAS in selected municipalities Every Four Months E: BL, MT, and Final KPC Survey							
16. % of mothers who identify fast breathing as a danger sign of pneumonia					76%		85%									
<b>Process Indicators:</b>																
18. % of mothers of children with ARIs who report being satisfied with the service received by HU staff.					N/A		80%		M: LQAS in selected municipalities Every Four Months M: User's Satisfaction Survey (every six months) M: AIN/AIEPI (monthly reports)							
19. % of CHVs reporting monthly the management of children with ARIs, according to AIEPI-C.					N/A		75%									
20. % of children less than 2 years old with ARIs treated with antibiotics					34%		42%									
<b>Major Activities</b>					<b>Year 1</b>				<b>Year 2</b>				<b>Personnel Responsible</b>		<b>Output/Outcome of Activity Desired</b>	
					<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>				
<i>SILAIS (Jinotega) Level (Coordination with Stakeholders (SILAIS/MINSA, other Public Sectors, Private Sector, local NGOs, community groups))</i>																
Support the SILAIS in the strengthening of Community Referral and Counter-referral System (logistics and trainings)								x	x	x	x	x	x	SILAIS staff, Project HOPE staff	80% of the HUs providing follow up to the Community Referral and Counter-referral System. (reviewing referrals and providing counter-referrals)	
Provide antibiotics for pneumonia case management to SILAIS to reduce the gap of MOH's medical supplies shortage.									x					Project HOPE Nicaragua.	80% of selected HUs with a medical supplies shortage less than 10 day per month.	
<i>Municipality Level (SILAIS, Public and Private Facilities, local NGOs and community groups)</i>																
Train HUs personnel on clinical AIEPI for the correct application of pneumonia management protocols.									x					SILAIS master trainers and staff in collaboration with local H/Us and Project HOPE staff	80 nurses and 30 doctors trained on AIN's norms and protocols	
Support municipalities on monitoring and follow-up of ARIs at community level.								x	x	x	x	x	x	Municipal Direction Team Project HOPE Staff	CHVs of 80 communities carry out home visits to children with ARIs counter-referred by the HUs.	

<b>Pneumonia / Acute Respiratory Illness (continued)</b>										
Community/Household Level (CHVs, TBAs other Community Volunteers)										
Implement community AIN in 80 communities prioritized by the SILAIS.			x	x			x	x	SILAIS, with assistance from HOPE staff	80 communities conducting monthly weighting sessions with assistance from H/Us
Train CHVs on community AIEPI for management and adequate referral of pneumonia/ARIs cases			x	x	x	x	x	x	HUs personnel Project HOPE staff	240 CHVs trained on adequate management of ARIs according to community AEIPI norms and protocols.
Train to CHVs on the identification of ARIs danger signs.				x	x	x	x	x	SILAIS master trainers HUs personnel Project HOPE staff	80% of mothers in communities with AIN-C receiving talks on ARIs danger signs from CHVs.
Train 240 CHVs on effective counseling techniques to improve healthcare for children with ARIs at community level.				x				x	SILAIS master trainers HUs personnel Project HOPE staff	240 CHVs providing effective counseling on ARIs management at home

## INTERVENTION: Child Spacing 10%

<b>Desired Result:</b> Increase birth intervals in mothers with children aged 0 to 23 months old												
<b>Intermediate Results (Outcome):</b> Increase the use of modern family planning methods in women of reproductive age Increase the percentage of mothers with children younger than 6 months old who use LAM as a child spacing method												
<b>Results Indicators:</b>						Targets		<b>Measurement Method (s)</b> <b>M: Monitoring; E: Evaluation</b>				
						Baseline	Final					
17. % of children aged 12 to 23 months old that were born at least 24 months after previous surviving child						84%	90%	M: Annual LQAS in selected municipalities E: BL, MT, and Final KPC Survey				
18. % of mothers with children aged 12 to 23 months old who are not pregnant, desire no more children or are not sure and report using a modern family planning method						65%	70%					
<b>Process Indicators:</b>												
21. Number of community health workers (CBDAs) distributing modern family planning methods within the pilot project's communities.						N/A	80%	M: Every Six months in health units MOH service statistics (HIS)  Direct observations checklists, exit interviews				
22. % of trained health facility staff demonstrating 'effective' counselling techniques during FP consultations						N/A	80%					
<b>Major Activities</b>				Year 1		Year 2				<b>Responsible Personnel</b>	<b>Output/Outcome of Activity Desired</b>	
				1	2	3	4	1	2			3
<i>SILAIS (Jinotega) Level (Coordination with Stakeholders (SILAIS/MOH, other Public Sectors, Private Sector, local NGOs, community groups))</i>												
Establish alliances with the MOH/SILAIS and other partners for the creation of new community posts for the distribution of family planning methods (80 prioritized communities, 20/year)						X	X	X	X		MOH/SILAIS, Municipal health staff, Project HOPE staff	Cooperation plan and protocols for family planning methods distribution posts being managed by 80 community health workers.
Support the management process at health units to improve the availability of modern family planning methods to women of reproductive age and their companions.							X	X	X	X	Health Units Staff and Project HOPE staff	Documentation of implemented management activities (HU- SILAIS)
<i>Municipality Level (MOH, Public and Private Facilities, local NGOs, and community groups)</i>												
Assist the SILAIS in the identification of performance gaps among health staff and the use of methodologies for selection of interventions to improve service delivery at the health unit and community levels.						X	X	X	X		Project HOPE staff in collaboration with SILAIS master trainer and staff	Providers' performance analysis Report
Assist the SILAIS in the identification of training needs for family planning and facilitate up-dating techniques during training supervisions to health personnel.						X	X				Project HOPE staff in collaboration with SILAIS master trainers and staff	Trained health personnel records and municipalities training plans
Training health personnel and the CHVs network on effective SRH counselling. 110 health facilities' personnel and 400 community health volunteers.								X	X	X	SILAIS trainers/facilitators assisted by Project HOPE Specialists	90% of eligible staff trained or updated

Child Spacing <i>(continued)</i>											
Strengthen the community and institutional health information systems regarding actual demand of women for family planning methods in order to improve the availability of the FPM at local level.				X	X	X	X	X	Municipal health staff, community health volunteers, Project HOPE staff	Functional and integrated SILAIS Health Information System (HIS)	
Community/Household Level <i>(CHVs, TBA, other health community workers)</i>											
Establish follow-up mechanisms at community level in order to improve accessibility to family planning methods through a network of community based distribution agents (CBDAs).					X	X	X	X	MOH, with assistance from Project HOPE staff	80% of target communities, with CBDAs follow-up mechanisms	
Pilot the community distribution posts strategy in areas not covered by PROFAMILIA to increase accessibility to family planning methods.					X	X	X	X	SILAIS, with assistance from Project HOPE staff	80% of target communities, with CBD posts	
Develop an operating manual for CBDAs, using as reference the ones done by other partners (PROSALUD) for the monitoring and follow up at community level by health units personnel in charge of the selected communities.			X	X					SILAIS, with assistance from Project HOPE staff	80% of CBDAs in target communities with operating manual and supervision reports	

# INTERVENTION: HIV / AIDS / STIs: 5%

<b>Desired Result:</b> Increase the capacity of healthcare providers to provide health education, counseling and referrals relating to sexual and reproductive health.														
<b>Intermediate Results (Outcome):</b> To increase the mothers' knowledge on how to prevent HIV / AIDS / STIs transmission														
<b>Results Indicators:</b>										Targets		<b>Measurement Method(s)</b> <b>M: Monitoring; E: Evaluation</b>		
										Baseline	Final			
19. % of mothers of children aged 0-23 months who know at least two ways to prevent HIV / AIDS / STIs										6%	15%	M: Annual LOAS in selected municipalities, E: BL, MT, and final KPC		
<b>Process Indicators:</b>														
22. % of HUs offering education and counseling on ways to prevent HIV / AIDS / STIs										N/A	80%	M. Every six months in health units, using verification lists and exit surveys to mothers.		
<b>D. MAJOR ACTIVITIES</b>					Year 1				Year 2				Personnel Responsible	Output/Outcome of Activity Desired
					1	2	3	4	1	2	3	4		
SILAIS (Jinotega) Level <i>(Coordination with Stakeholders (SILAIS/MOH, other Public Sectors, Private Sector, local NGOs, community groups))</i>														
Coordinate with SILAIS the update plans for health personnel on SRH and HIV / AIDS / STIs, according to MOH's curricula, emphasizing training on educational methodologies and counseling.							X	X	X	X			MOH SILAIS/ Municipal staff, Project HOPE staff	Updating plan and training curricula on SRH
Municipality Level <i>(MOH, Public and Private Facilities, local NGOs, and community groups)</i>														
Training and sensitization of health personnel to carry out the approach and discretionary management of matters related to HIV / AIDS / STIs.							X	X	X	X			SILAIS master trainers and staff Project HOPE staff	Trained health providers and municipal training plans
Select and promote key messages to increase mothers' knowledge on ways to prevent against HIV / AIDS / STIs through IEC strategies within the AIM programs of the HUs.								X	X	X	X	X	SILAIS master trainers and staff Project HOPE staff	80% of selected H/Us promoting key messages verified through exit surveys.
Community/Household Level <i>(Brigadistas, TBAs, other Community Volunteers)</i>														
Promote key messages on subjects related to SRH and HIV / AIDS / STIs at HUs and communities mother's/fathers clubs									X	X	X	X	Healthcare providers and CHVs	80% of mothers and fathers clubs trained on documented SRH and HIV/Aids subjects.